

LIST OF THE AUTHORED OR EDITED BOOKS
(in English Language)

1. A. Carpinteri, A.R. Ingraffea (Editors): *Fracture Mechanics of Concrete: Material Characterization and Testing*, Martinus Nijhoff Publishers, The Hague (1984), XII + 202.
2. A. Carpinteri: *Mechanical Damage and Crack Growth in Concrete: Plastic Collapse to Brittle Fracture*, Martinus Nijhoff Publishers, Dordrecht (1986), XIII + 234.
3. S.P. Shah, A. Carpinteri (Editors): *Fracture Mechanics Test Methods for Concrete*, Chapman & Hall, London (1991), XII + 287.
4. A. Carpinteri (Editor): *Applications of Fracture Mechanics to Reinforced Concrete*, Elsevier Applied Science, London (1992), XIV + 616.
5. A. Carpinteri et al. (Editors): *Localized Damage: Computer-Aided Assessment and Control*, Computational Mechanics Publications, Southampton (1994), XIV + 736.
6. G.C. Sih, A. Carpinteri, G. Surace (Editors): *Advanced Technology for Design and Fabrication of Composite Materials and Structures*, Kluwer Academic Publishers, Dordrecht (1995), XX + 438.
7. A. Carpinteri (Editor): *Size-Scale Effects in the Failure Mechanisms of Materials and Structures*, Chapman & Hall, London (1996), XIII + 593.
8. A. Carpinteri: *Structural Mechanics: A Unified Approach*, Chapman & Hall, London (1997), XV + 761.
9. A. Carpinteri, F. Mainardi (Editors): *Fractals and Fractional Calculus in Continuum Mechanics*, Springer-Verlag, Vienna (1997), VII + 348.
10. A. Carpinteri, C.A. Brebbia (Editors): *Damage and Fracture Mechanics*, Computational Mechanics Publications, Southampton (1998), XIV + 670.
11. A. Carpinteri, M.H. Aliabadi (Editors): *Computational Fracture Mechanics in Concrete Technology*, WIT Press, Southampton (1999), XII + 223.
12. A. Carpinteri (Editor): *Minimum Reinforcement in Concrete Members*, Elsevier Science, Oxford (1999), VIII + 203.
13. A. Carpinteri (Editor): *Nonlinear Crack Models for Nonmetallic Materials*, Kluwer Academic Publishers, Dordrecht (1999), XI + 309.

14. A. Carpinteri, B.L. Karihaloo (Guest Editors): *Size-Scale Effects* – Special Issue of the International Journal *Engineering Fracture Mechanics*, Pergamon Press, Oxford (2003), Vol. 70, N. 16, 2255-2350.
15. A. Carpinteri (Editor): *11th International Conference on Fracture, Turin (Italy) – March 20-25, 2005, Abstract Book*, Trading, Torino (2005), 1-1248.
16. A. Carpinteri (Editor): *11th International Conference on Fracture, Turin (Italy) – March 20-25, 2005, Proceedings CD-ROM*, Trading, Torino (2005); Website www.ICF11.com.
17. A. Carpinteri (Guest Editor): *11th International Conference on Fracture (ICF11), Torino, Italy, 20-25 March 2005. Mini-Symposium – "Complexity, Scaling and Non-Linearity in the Mechanics of Advanced Materials"* – Special Issue of the International Journal *Strength, Fracture and Complexity*, IOS Press, Amsterdam (2005), Vol. 3, N. 2-4, 49-225.
18. A. Carpinteri, Y.-W. Mai, R.O. Ritchie (Guest Editors): *Honor and Plenary Lectures presented at the 11th International Conference on Fracture (ICF11), held in Turin, Italy, on March 20-25, 2005* – Special Issue of the International Journal of Fracture, Springer, Dordrecht (2006), Vol. 138, N. 1-4, 1-262.
19. A. Carpinteri, Y.-W. Mai, R.O. Ritchie (Editors): *Advances in Fracture Research*, Springer, Dordrecht (2006), 1-262.
20. A. Carpinteri, M. Kitagawa, A. Saxena, B. Wilshire, T. Yokobori Jr. (Guest Editors): *Selected papers presented at ICF11 – Mini-Symposium on "High Temperature and Creep" – Part I* – Special Issue of the International Journal *Strength, Fracture and Complexity*, IOS Press, Amsterdam (2006), Vol. 4, N. 1, 1-61.
21. A. Carpinteri, M. Kitagawa, A. Saxena, B. Wilshire, T. Yokobori Jr. (Guest Editors): *Selected papers presented at ICF11 – Mini-Symposium on "High Temperature and Creep" – Part II* – Special Issue of the International Journal *Strength, Fracture and Complexity*, IOS Press, Amsterdam (2006), Vol. 4, N. 2, 63-139.
22. A. Carpinteri et al. (Editors): *New Trends in Fracture Mechanics of Concrete*, Taylor & Francis, London (2007), 1-640.
23. A. Carpinteri et al. (Editors): *Design, Assessment and Retrofitting of RC Structures*, Taylor & Francis, London (2007), 641-1262.
24. A. Carpinteri et al. (Editors): *High-Performance Concrete, Brick-Masonry and Environmental Aspects*, Taylor & Francis, London (2007), 1263-1886.

25. A. Carpinteri, G. Lacidogna (Editors): *Earthquakes and Acoustic Emission*, Taylor & Francis, London (2007), X + 199.
26. A. Carpinteri, G. Lacidogna (Editors): *Acoustic Emission and Critical Phenomena: From Structural Mechanics to Geophysics*, CRC Press, Boca Raton (2008), X + 271.
27. A. Carpinteri: *11th International Conference on Fracture, Turin (Italy) – March 20-25, 2005, Final Report*, Trading, Torino (2008), 1-128.
28. A. Carpinteri (Editor): *11th International Conference on Fracture 2005 (ICF11)*, Currant Asspcoates Inc., New York (2010), Vol. 1-8, 1-6318.
29. M. Paggi, A. Carpinteri, P. Wriggers (Guest Editors): *Fracture and Contact Mechanics for Interface Problems – Special Issue of the International Journal Engineering Fracture Mechanics*, Elsevier, Amsterdam (2012), Vol. 80, 1-113.
30. M. Paggi, A. Carpinteri, P. Wriggers (Guest Editors): *Computational Methods for Interface Mechanical Problems – Special Issue of the International Journal Computational Mechanics*, Springer Verlag, Heidelberg (2012), Vol. 50 (3), 269-381.
31. A. Carpinteri (Editor-in-Chief): *Meccanica*, Springer Verlag, Heidelberg (2012), Vol. 47 (8 Issues), 1-2082.
32. A. Carpinteri (Editor-in-Chief): *Meccanica*, Springer Verlag, Heidelberg (2013), Vol. 48 (10 Issues), 1-2594.
33. A. Carpinteri (Editor-in-Chief): *Meccanica*, Springer Verlag, Heidelberg (2014), Vol. 49 (10 Issues), 1-2547.
34. A. Carpinteri: *Structural Mechanics Fundamentals*, CRC Press, Taylor & Francis Group, Boca Raton (2014), XIV + 498.
35. A. Carpinteri, D.M.R. Taplin, S. Yu, A.T. Yokobori (Guest Editors): *Sir Alan Cottrell Memorial Issue*, Special Issue of the International Journal *Strength, Fracture and Complexity*, IOS Press, Amsterdam (2014), Vol. 8, N.2, 57-133.
36. A. Carpinteri, G. Lacidogna, A. Manuello (Editors): *Acoustic, Electromagnetic, Neutron Emissions from Fracture and Earthquakes*, Springer International Publishing Switzerland (2015), VIII + 264.
37. S. Bossuyt, G. Schajer, A. Carpinteri (Editors): *Residual Stress, Thermomechanics & Infrared Imaging, Hybrid Techniques and Inverse Problems*, Proceedings of the 2015 Annual Conference on Experimental and Applied Mechanics, Springer (2016), Vol. 9, IX + 380.

38. A. Carpinteri: *Advanced Structural Mechanics*, CRC Press, Taylor & Francis Group, Boca Raton (2017), XIV + 531.
39. T. Kishi, A. Carpinteri, S.W. Yu (Guest Editors): *Professor Takeo Yokobori Memorial Issue*, Special Issue of the International Journal *Strength, Fracture and Complexity*, IOS Press, Amsterdam (2020), Vol. 12, N. 2-4, 59-197.
40. A. Carpinteri: *Fracture and Complexity. One Century since Griffith's Milestone*, Springer Nature B. V. (2021), XXXI + 949.
41. D. Scaramozzino, G. Lacidogna, A. Carpinteri: *Waves in Biomechanics: THz Vibrations and Modal Analysis in Proteins and Macromolecular Structures*, Morgan & Claypool Publishers (2022), X + 82.

LIST OF THE AUTHORED OR EDITED BOOKS
(in Italian Language)

42. A. Carpinteri: *La Geometria delle Masse*, Pitagora Editrice, Bologna (1983), VII + 197.
43. A. Carpinteri ed Altri Autori: *Costruzioni di Conglomerato Cementizio Armato in Zona Sismica: Orientamenti sull'Adeguamento*, Grafiche Dehoniane, Bologna (1983), V + 353.
44. A. Carpinteri, P. Bocca (a cura di): *Danneggiamento e Diagnosi di Materiali e Strutture*, Pitagora Editrice, Bologna (1992), VI + 361.
45. A. Carpinteri: *Scienza delle Costruzioni 1*, Pitagora Editrice, Bologna (1992), XI + 423.
46. A. Carpinteri: *Scienza delle Costruzioni 2*, Pitagora Editrice, Bologna (1992), XI + 421.
47. A. Carpinteri (a cura di): *Meccanica dei Materiali e della Frattura*, Pitagora Editrice, Bologna (1992), VIII + 267.
48. A. Carpinteri: *Scienza delle Costruzioni – Temi d'esame 1987-1992*, Pitagora Editrice, Bologna (1993), IV + 200.
49. A. Carpinteri: *Resistenza dei Materiali e Meccanica delle Strutture*, Pitagora Editrice, Bologna (1995), VIII + 391.
50. A. Carpinteri: *Calcolo Automatico delle Strutture*, Pitagora Editrice, Bologna (1997), XI + 377.
51. A. Carpinteri: *Analisi Non-Lineare delle Strutture*, Pitagora Editrice, Bologna (1998), VII + 243.
52. A. Carpinteri: *Dinamica delle Strutture*, Pitagora Editrice, Bologna (1998), VIII + 209.
53. A. Carpinteri: *Scienza delle Costruzioni – Temi d'esame 1992-1997*, Pitagora Editrice, Bologna (1998), IV + 200.
54. A. Carpinteri, G. Lacidogna, C. Surace: *Calcolo dei Telai Piani – Esempi ed Esercizi*, Pitagora Editrice, Bologna (2002), VIII + 518.

55. A. Carpinteri, G. Lacidogna, M. Paggi: *Calcolo delle Strutture Isostatiche*, Pitagora Editrice, Bologna (2009), VI + 327.
56. G. Lacidogna, A. Carpinteri (a cura di): XXI Congresso Associazione Italiana di Meccanica Teorica e Applicata, Torino, 17-20 Settembre 2013, Volume dei Sommari, Edizioni Libreria Cortina, Torino (2013), XXX + 356.
57. A. Carpinteri (a cura di): *Il Patrimonio Pittorico Murale dei Sacri Monti: Monitoraggio, Valorizzazione e Recupero*, Aracne Editrice, Roma (2017), 1-192.
58. A. Carpinteri, G. Lacidogna (a cura di): *Il Dottorato di Ricerca in Ingegneria delle Strutture del Politecnico di Torino 1990-2018: Una Fucina di Idee per oltre un Quarto di Secolo*, Politecnico di Torino (2022), 1-92.

July 2025

LIST OF THE PAPERS PUBLISHED IN REFEREED JOURNALS OR CONFERENCE PROCEEDINGS

Year 1978

1. A. Carpinteri: "Crack dominante e microcracks nei materiali fragili", *Giornale del Genio Civile*, Fasc. 1-2-3 (1978), 67-82.
2. A. Carpinteri, A. Di Tommaso, E. Viola: "Stato limite di frattura nei materiali fragili", *Giornale del Genio Civile*, Fasc. 4-5-6 (1978), 201-224.
3. A. Carpinteri, A. Di Tommaso, E. Viola: "Effetto delle tensioni non-singolari sui domini di frattura per cracks soggetti a stati di sollecitazione mista", *Atti del 4° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Firenze, Italy, 1978, Vol. 2, 113-127.

Year 1979

4. A. Carpinteri, A. Di Tommaso, E. Viola: "Collinear stress effect on the crack branching phenomenon", *Materials and Structures (RILEM)*, Vol. 12 (1979), 439- 446.
5. A. Carpinteri: "Il J-integral come strumento di indagine nella meccanica della frattura", *Tecnica Italiana*, N. 6 (1979), 327-335.
6. A. Carpinteri, E. Lorenzini: "Shock termico in barre nucleari rivestite da una guaina", *Tecnica Italiana*, N. 2 (1979), 87-95.
7. E. Lorenzini, A. Carpinteri: "Analisi termoelastica in regime transitorio di una barra di combustibile nucleare con conducibilità termica variabile", *Ingegneria*, N. 3-4 (1979), 87-94.
8. A. Carpinteri, E. Lorenzini: "Rilassamento viscoso delle tensioni termiche in un solido a conducibilità termica variabile", *Ingegneria*, N. 11-12 (1979), 350-355.
9. A. Carpinteri, A. Di Tommaso, E. Viola: "Accrescimento per fatica di difetti nelle strutture iperstatiche in acciaio", *Atti del 7° Congresso del Collegio dei Tecnici dell'Acciaio (CTA)*, Torino, Italy, 1979, 261-272.

Year 1980

10. A. Carpinteri, E. Lorenzini: "Thermal shock in a nuclear fuel element with cladding", *Nuclear Engineering and Design*, Vol. 61 (1980), 1-12.

11. A. Carpinteri: "Le prove di frattura sui materiali lapidei da costruzione", *Ingegneri, Architetti, Costruttori (IN.AR.COS.)*, N. 408 (1980), 176-186.
12. A. Carpinteri, A. Di Tommaso, E. Viola: "Fatigue evolution of multicroaked frame-structures", in *Analytical and Experimental Fracture Mechanics* (Proceedings of an International Conference, Roma, Italy, 1980), Eds. G.C. Sih, M. Mirabile, Sijthoff & Noordhoff, Alphen an den Rijn (1981), 417-430.
13. A. Carpinteri: "Size effect in fracture toughness testing: A dimensional analysis approach", in *Analytical and Experimental Fracture Mechanics* (Proceedings of an International Conference, Roma, Italy, 1980), Eds. G.C. Sih, M. Mirabile, Sijthoff & Noordhoff, Alphen an den Rijn (1981), 785-797.
14. A. Carpinteri, A. Di Tommaso: "Some notes on the mixed mode crack problem", in *Absorbed Specific Energy and/or Strain Energy Density Criterion* (Proceedings of an International Symposium, Budapest, Hungary, 1980), Eds. G.C. Sih, E. Czoboly, F. Gillemot, Martinus Nijhoff Publishers, the Hague (1982), 319-322.
15. A. Carpinteri, A. Di Tommaso, E. Viola: "Sulla capacità portante limite di pareti lapidee lesionate", *Atti del 5° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Palermo, Italy, 1980, Vol. 2, 93-104.
16. A. Carpinteri, A. Di Tommaso, E. Viola: "Vita a fatica di strutture iperstatiche metalliche contenenti difetti", *Atti della Accademia delle Scienze dell'Istituto di Bologna*, Bologna, Italy, 1980, Serie XIII, Tomo VII, 275-294.

Year 1981

17. A. Carpinteri: "Static and energetic fracture parameters for rocks and concretes", *Materials and Structures (RILEM)*, Vol. 14 (1981), 151-162.
18. M. Spiga, A. Carpinteri: "Some notes on thermo-mechanical design of nuclear structural components", *Res Mechanica Letters*, Vol. 1 (1981), 503-510.
19. Alberto Carpinteri, Andrea Carpinteri, A. Di Tommaso: "Applicazione della meccanica della frattura alle strutture metalliche", *Atti dell'8° Congresso del Collegio dei Tecnici dell'Acciaio (CTA)*, Palermo, Italy, 1981, 133-145; *Costruzioni Metalliche*, N. 5 (1982), 215-224.
20. A. Carpinteri: "Experimental determination of fracture toughness parameters K_{IC} and J_{IC} for aggregative materials", in *Advances in Fracture Research* (Proceedings of the 5th International Conference on Fracture, Cannes, France, 1981), Ed. D. François, Pergamon Press, Oxford (1981), 1491-1498.
21. A. Carpinteri: "A fracture mechanics model for reinforced concrete collapse", in *Advanced Mechanics of Reinforced Concrete* (Proceedings of a IABSE

Colloquium, Delft, the Netherlands, 1981), Delft University Press, Delft (1981), 17-30.

22. A. Carpinteri, M. Spiga: "Thermoelastic response of an idealized nuclear fuel pin", *Transactions of the 6th International Conference on Structural Mechanics in Reactor Technology*, Paris, France, 1981, D2/6.

Year 1982

23. A. Carpinteri: "Notch sensitivity in fracture testing of aggregative materials", *Engineering Fracture Mechanics*, Vol. 16 (1982), 467-481.
24. A. Carpinteri: "Application of fracture mechanics to concrete structures", *Journal of the Structural Division (ASCE)*, Vol. 108 (1982), 833-848.
25. A. Carpinteri: "Sensitivity and stability of progressive cracking in plain and reinforced cement composites", *The International Journal of Cement Composites and Lightweight Concrete*, Vol. 4 (1982), 47-56.
26. Alberto Carpinteri, Andrea Carpinteri: "Softening and fracturing process in masonry arches", *Proceedings of the 6th International Brick Masonry Conference*, Roma, Italy, 1982, 502-510.
27. M. Spiga, A. Carpinteri: "Thermomechanical aspects of a fouling spot on a heated surface", *Proceedings of the 2nd Conference on Mechanical Design and Production*, Cairo, Egypt, 1982, 31-39.
28. Alberto Carpinteri, Andrea Carpinteri: "Elastic-plastic shake-down in reinforced concrete beams subjected to repeated loadings", *Atti del 6° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Genova, Italy, 1982, Vol. 5, 179- 190.
29. A. Di Leo, A. Carpinteri: "Sensibilità all'intaglio nelle prove brasiliana e di doppio punzonamento", *Atti del 10° Convegno Nazionale dell'Associazione Italiana per l'Analisi delle Sollecitazioni*, Cosenza, Italy, 1982, 91-100.

Year 1983

30. A. Carpinteri: "Stiffness loss and fracture resistance of a cracked beam with circular cross-section", *Meccanica*, Vol. 18 (1983), 156-162.
31. A. Carpinteri: "Plastic flow collapse vs. separation collapse in elastic-plastic strain-hardening structures", *Materials and Structures (RILEM)*, Vol. 16 (1983), 85-96.

32. A. Carpinteri, M. Spiga: "Stability of brittle fracture in thermally loaded pressure vessels", *Transactions of the 7th International Conference on Structural Mechanics in Reactor Technology*, Chicago, USA, 1983, H5/9; *Res Mechanica*, Vol. 15 (1985), 247-257.
33. A. Carpinteri: "Size effects in solid mechanics due to topology transformation during crack growth", in *Application of Fracture Mechanics to Materials and Structures* (Proceedings of an International Conference, Freiburg, Germany, 1983), Eds. G.C. Sih, E. Sommer, W. Dahl, Martinus Nijhoff Publishers, the Hague (1984), 281-293.
34. A. Carpinteri: "Statistical strength variation in materials with a random distribution of defects", *Nota Tecnica dell'Istituto di Scienza delle Costruzioni*, Università di Bologna, N. 73, 1983.

Year 1984

35. A. Carpinteri, G.C. Sih: "Damage accumulation and crack growth in bilinear materials with softening: Application of strain energy density theory", *Theoretical and Applied Fracture Mechanics*, Vol. 1 (1984), 145-159.
36. A. Carpinteri: "Size effects in material strength due to crack growth and material non-linearity", *Theoretical and Applied Fracture Mechanics*, Vol. 2 (1984), 39- 46.
37. A. Carpinteri: "Stability of fracturing process in R.C. beams", *Journal of Structural Engineering (ASCE)*, Vol. 110 (1984), 544-558.
38. Alberto Carpinteri, Andrea Carpinteri: "Hysteretic behavior of R.C. beams", *Journal of Structural Engineering (ASCE)*, Vol. 110 (1984), 2073-2084.
39. M. Spiga, A. Carpinteri: "Three-dimensional thermoelastic analysis of a semi-infinite solid with arbitrary heat supply", *Ingenieur-Archiv*, Vol. 54 (1984), 253- 258.
40. A. Carpinteri: "Il completamento dello spazio di soluzione nel metodo degli elementi finiti", *Tecnica Italiana*, N. 3 (1984), 121-127.
41. A. Carpinteri: "Interpretation of the Griffith instability as a bifurcation of the global equilibrium", in *Application of Fracture Mechanics to Cementitious Composites* (Proceedings of a NATO Advanced Research Workshop, Evanston, USA, 1984), Ed. S.P. Shah, Martinus Nijhoff Publishers, Dordrecht (1985), 287- 316.
42. A. Carpinteri: "Numerical modelling of damage and fracture in concrete", in *Advances in Fracture Research* (Proceedings of the 6th International Conference

on Fracture, New Delhi, India, 1984), Eds. S.R. Valluri et al., Pergamon Press, Oxford (1984), Vol. 4, 2801-2807.

43. A. Carpinteri: "A non-linear fracture mechanics model for concrete structures: Numerical investigation", *Atti del 7° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Trieste, Italy, 1984, Vol. 5, 1-13.

Year 1985

44. A. Carpinteri, C. Marega, A. Savadori: "Ductile-brittle transition by varying structural size", *Engineering Fracture Mechanics*, Vol. 21 (1985), 263-271.
45. Alberto Carpinteri, Andrea Carpinteri: "Lateral loading distribution between the elements of a three-dimensional civil structure", *Computers & Structures*, Vol. 21 (1985), 563-580.
46. Alberto Carpinteri, Andrea Carpinteri: "Effetto delle tamponature nelle strutture intelaiate sottoposte a sollecitazione sismica", *L'industria Italiana del Cemento*, Vol. LV (1985), 280-289.
47. A. Carpinteri: "Effetti dimensionali sulla fragilità delle strutture in calcestruzzo", *Il Cemento ed il Calcestruzzo negli anni '80 (25° AITEC)*, Parma, Italy, 1985, 109-123; *Il Cemento*, Vol. 83 (1986), 375-388.
48. A. Carpinteri: "Scale effects in fracture of plain and reinforced concrete structures", in *Fracture Mechanics of Concrete: Structural Application and Numerical Calculation*, Eds. G.C. Sih, A. Di Tommaso, Martinus Nijhoff Publishers, Dordrecht (1985), 95-140.
49. A. Carpinteri, A. Di Tommaso, M. Fanelli: "Influence of material parameters and geometry on cohesive crack propagation", in *Fracture Toughness and Fracture Energy of Concrete* (Proceedings of an International Conference on Fracture Mechanics of Concrete, Lausanne, Switzerland, 1985), Ed. F.H. Wittmann, Elsevier, Amsterdam (1986), 117-135.
50. A. Carpinteri, G. Colombo, G. Giuseppetti: "Accuracy of the numerical description of cohesive crack propagation", in *Fracture Toughness and Fracture Energy of Concrete* (Proceedings of an International Conference on Fracture Mechanics of Concrete, Lausanne, Switzerland, 1985), Ed. F.H. Wittmann, Elsevier, Amsterdam (1986), 189-195.
51. A. Carpinteri, A. Di Tommaso, G. Ferrara, G. Melchiorri: "Experimental evaluation of concrete fracture energy through a new identification method", in *Fracture Toughness and Fracture Energy of Concrete* (Proceedings of an International Conference on Fracture Mechanics of Concrete, Lausanne, Switzerland, 1985), Ed. F.H. Wittmann, Elsevier, Amsterdam (1986), 423-436.

52. A. Carpinteri: "Limit analysis for elastic-softening structures: Scale and slenderness influence on the global brittleness", in *Structure and Crack Propagation in Brittle Matrix Composite Materials* (Proceedings of the Euromech Colloquium 204, Warsaw, Poland, 1985), Eds. A.M. Brandt, I.H. Marshall, Elsevier Applied Science, London (1986), 497-508.

Year 1986

53. A. Carpinteri: "Crack problems in large reinforced concrete structures subjected to thermal loading", *Heat & Technology*, Vol. 4 (1986), 20-32.
54. A. Carpinteri, C. Marega, A. Savadori: "Size effects and ductile-brittle transition of polypropylene", *Journal of Materials Science*, Vol. 21 (1986), 4173-4178.
55. A. Carpinteri: "Cohesive crack tip modelling of plastic fracture", in *Fracture Control of Engineering Structures* (Proceedings of the 6th European Conference on Fracture, Amsterdam, the Netherlands, 1986), Eds. H.C. van Elst, A. Bakker, EMAS, Sheffield (1986), 75-82.
56. A. Carpinteri: "Linear elastic fracture mechanics as a limit-case of strain-softening instability", *Atti dell'8° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Torino, Italy, 1986, Vol. 1, 313-318; *Meccanica*, Vol. 23 (1988), 160-165.

Year 1987

57. A. Carpinteri: "Stress-singularity and generalized fracture toughness at the vertex of re-entrant corners", *Engineering Fracture Mechanics*, Vol. 26 (1987), 143-155.
58. A. Carpinteri: "Influence of defects and porosity on material strength", *Proceedings of the 1st International Congress of RILEM*, Versailles, France, 1987, 183-190.
59. A. Carpinteri, M. Fanelli: "Numerical analysis of the catastrophic softening behavior in brittle structures", in *Numerical Methods in Fracture Mechanics* (Proceedings of the 4th International Conference, San Antonio, USA, 1987), Eds. A.R. Luxmoore et al., Pineridge Press, Swansea (1987), 369-386.
60. A. Carpinteri, G. Colombo, G. Ferrara, G. Giuseppetti: "Numerical simulation of concrete fracture through a bilinear softening stress-crack opening displacement law", in *Fracture of Concrete and Rock* (Proceedings of a SEM-RILEM International Conference, Houston, USA, 1987), Eds. S.P. Shah, S.E. Swartz, Springer-Verlag, New York (1989), 131-141.

61. A. Carpinteri, P. Bocca: "Transferability of small specimen data to full-size structural components", in *Composite Material Response: Constitutive Relations and Damage Mechanisms* (Proceedings of an International Workshop, Glasgow, U.K., 1987), Ed. G.C. Sih et al., Elsevier Applied Science, London (1988), 111- 131.
62. A. Carpinteri: "Catastrophical softening behaviour and hyperstrength in low reinforced concrete beams", in *Plain and Slightly Reinforced Concrete Structures* (Proceedings of the 25th Plenary Session of the Comité Euro-International du Béton, Treviso, Italy, 1987), CEB Bulletin d'Information, N. 185, Lausanne (1988), 97-115.

Year 1988

63. A. Carpinteri: "Interaction between tensile strength failure and mixed mode crack propagation in concrete", *Materials and Structures (RILEM)*, Vol. 21 (1988), 403- 409.
64. A. Carpinteri: "Snap-back and hyperstrength in lightly reinforced concrete beams", *Magazine of Concrete Research*, Vol. 40 (1988), 209-215.
65. A. Carpinteri, S. Valente: "Numerical modelling of mixed mode cohesive crack propagation", in *Computational Mechanics '88* (Proceedings of the International Conference on Computational Engineering Science, Atlanta, USA, 1988), Eds. S.N. Atluri, G. Yagawa, Springer-Verlag, Berlin (1988), Vol. 1, 12-VI.
66. A. Carpinteri, S. Valente: "Size-scale transition from ductile to brittle failure: A dimensional analysis approach", in *Cracking and Damage: Strain Localization and Size Effect* (Proceedings of a France-U.S. Workshop, Cachan, France, 1988), Eds J. Mazars, Z.P. Bazant, Elsevier Applied Science, London (1989), 477-490.
67. A. Carpinteri: "Fracture mechanics of concrete-like materials: Size effects on strength, toughness and ductility", *Proceedings of the European Conference on Cracking of Concrete and Durability of Construction*, Saint-Rémy-lès-Chevreuse, France, 1988, 2.21-2.34.
68. A. Carpinteri: "Fracture mechanics and post-peak structural behaviour of plain and reinforced concrete", in *Fracture Toughness and Fracture Energy: Test Methods for Concrete and Rock* (Proceedings of an International Workshop, Sendai, Japan, 1988), Eds. H. Mihashi, H. Takahashi, F.H. Wittmann, A.A. Balkema, Rotterdam (1989), 13-28.
69. P. Bocca, A. Carpinteri, S. Valente: "On the applicability of fracture mechanics to masonry", *Proceedings of the 8th International Brick and Block Masonry Conference*, Dublin, Ireland, 1988, 1027- 1039.

70. A. Carpinteri, S. Valente: "Mixed mode crack propagation and ductile-brittle transition by varying structural size", *Atti del 9° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Bari, Italy, 1988, Vol. 1, 107-110.

Year 1989

71. L. Biolzi, S. Cangiano, G. Tognon, A. Carpinteri : "Snap-back softening instability in high strength concrete beams", *Materials and Structures (RILEM)*, Vol. 22 (1989), 429-436.
72. P. Bocca, A. Carpinteri, S. Valente: "Fracture mechanics of brick masonry: Size effects and snap-back analysis", *Materials and Structures (RILEM)*, Vol. 22 (1989), 364-373.
73. A. Carpinteri: "Post-peak and post-bifurcation analysis of cohesive crack propagation", *Engineering Fracture Mechanics*, Vol. 32 (1989), 265-278.
74. A. Carpinteri: "Size effects on strength, toughness and ductility", *Journal of Engineering Mechanics (ASCE)*, Vol. 115 (1989), 1375-1392.
75. A. Carpinteri, G. Colombo: "Numerical analysis of catastrophic softening behaviour (snap-back instability)", *Computers & Structures*, Vol. 31 (1989), 607- 636.
76. A. Carpinteri: "Cusp catastrophe interpretation of fracture instability", *Journal of the Mechanics and Physics of Solids*, Vol. 37 (1989), 567-582.
77. A. Carpinteri: "Decrease of apparent tensile and bending strength with specimen size: Two different explanations based on fracture mechanics", *International Journal of Solids and Structures*, Vol. 25 (1989), 407-429.
78. A. Carpinteri: "Softening and snap-back instability in cohesive solids", *International Journal for Numerical Methods in Engineering*, Vol. 28 (1989), 1521-1537.
79. A. Carpinteri, S. Valente: "Analysis of mixed mode fracture in concrete – Discussion on a paper by J.G. Rots and R. de Borst", *Journal of Engineering Mechanics (ASCE)*, Vol. 115 (1989), 2344-2347.
80. A. Carpinteri, S. Valente, P. Bocca: "Mixed mode cohesive crack propagation", in *Advances in Fracture Research* (Proceedings of the 7th International Conference on Fracture, Houston, USA, 1989), Eds. K. Salama et al., Pergamon Press, Oxford (1989), Vol. 3, 2243-2257.
81. S. Valente, A. Carpinteri: "Design and analysis of orthotropic composite materials through a mixed mode cohesive crack simulation", in *Developments in the Science*

and Technology of Composite Materials (Proceedings of the 3rd European Conference on Composite Materials, Bordeaux, France, 1989), Eds. A.R. Bunsell, P. Lamicq, A. Massiah, Elsevier Applied Science, London (1989), 309-314.

82. A. Carpinteri: "Size-scale effects on the brittleness of concrete structures: Dimensional analysis and snap-back instability", in *Fracture Mechanics: Applications to Concrete*, American Concrete Institute, Special Publication N. 118, Detroit (1989), 197-236.
83. A. Carpinteri: "Local and global instability in fracture mechanics", in *Mechanics and Physics of Energy Density* (Proceedings of an International Symposium, Xanthi, Greece, 1989), Eds. G.C. Sih, E.E. Gdoutos, Kluwer Academic Publishers, Dordrecht (1992), 87-107.
84. A. Carpinteri, G. Ferrara, G. Melchiorri: "Single edge notched specimen subjected to four point shear: An experimental investigation", in *Fracture of Concrete and Rock: Recent Developments* (Proceedings of an International Conference, Cardiff, U.K., 1989), Eds. S.P. Shah, S.E. Swartz, B. Barr, Elsevier Applied Science, London (1989), 605-614.
85. P. Bocca, A. Carpinteri, S. Valente: "Evaluation of concrete fracture energy through a pull-out testing procedure", in *Fracture of Concrete and Rock: Recent Developments* (Proceedings of an International Conference, Cardiff, U.K., 1989), Eds. S.P. Shah, S.E. Swartz, B. Barr, Elsevier Applied Science, London (1989), 347-356.
86. C. Bosco, A. Carpinteri, P.G. Debernardi: "Size effect on the minimum steel percentage for reinforced concrete beams", in *Fracture of Concrete and Rock: Recent Developments* (Proceedings of an International Conference, Cardiff, U.K., 1989), Eds. S.P. Shah, S.E. Swartz, B. Barr, Elsevier Applied Science, London (1989), 672-681.
87. C. Bosco, A. Carpinteri: "Use of the brittleness number as a rational approach to minimum reinforcement design", in *Analysis of Concrete Structures by Fracture Mechanics* (Proceedings of the RILEM Workshop dedicated to Prof. Arne Hillerborg, Abisko, Sweden, 1989), Eds. L. Elfgren, S.P. Shah, Chapman and Hall, London (1991), 133-151.
88. A. Carpinteri: "Development of realistic concrete models including scaling effects", *Final Report to the Commission of the European Communities, Reactor Safety Programme 1985-87*, Ispra, Italy, 1989.
89. A. Carpinteri: "Non-linear phenomena associated with fracture in strain-softening materials", in *Non-linear Fracture Mechanics* (CISM, Courses and Lectures, N. 314, Udine, Italy, 1989), Ed. M.P. Wnuk, Springer-Verlag, Wien (1990), 61-121.

90. C. Bosco, A. Carpinteri, P.G. Debernardi: "Effetto scala sul progetto di elementi in calcestruzzo ad alta resistenza", *Atti del Convegno dell'Associazione Italiana per il Cemento Armato e Precompresso (AICAP)*, Napoli, Italy, 1989, 83-94.
91. P. Bocca, A. Carpinteri, S. Valente: "Influenza della geometria del campione sull'energia restituita nelle rotture fragili: Indagine numerica e sperimentale", in *Ricordo di R. Baldacci e M. Capurso* (Atti del Convegno Nazionale, Roma, Italy, 1989), 85-96.
92. S. Valente, A. Carpinteri, P. Bocca: "Analisi del processo di fessurazione nelle strutture in calcestruzzo tramite il concetto dell'energia di frattura", in *Ricordo di R. Baldacci e M. Capurso* (Atti del Convegno Nazionale, Roma, Italy, 1989), 97-105.
93. P. Bocca, A. Carpinteri: "Size effect in the compressive behavior of concrete", *Atti del Dipartimento di Ingegneria Strutturale*, Politecnico di Torino, N. 17, 1989.

Year 1990

94. P. Bocca, A. Carpinteri: "Snap-back fracture instability in rock specimens: Experimental detection through a negative impulse", *Engineering Fracture Mechanics*, Vol. 35 (1990), 241-250.
95. P. Bocca, A. Carpinteri, S. Valente: "Size effects in the mixed mode crack propagation: Softening and snap-back analysis", *Engineering Fracture Mechanics*, Vol. 35 (1990), 159-170.
96. E. Ballatore, A. Carpinteri, G. Ferrara, G. Melchiorri: "Mixed mode fracture energy of concrete", *Engineering Fracture Mechanics*, Vol. 35 (1990), 145-157.
97. C. Bosco, A. Carpinteri, P.G. Debernardi: "Fracture of reinforced concrete: Scale effects and snap-back instability", *Engineering Fracture Mechanics*, Vol. 35 (1990), 665-677.
98. C. Bosco, A. Carpinteri, P.G. Debernardi: "Minimum reinforcement in high strength concrete", *Journal of Structural Engineering (ASCE)*, Vol. 116 (1990), 427-437.
99. A. Carpinteri: "A catastrophe theory approach to fracture mechanics", *International Journal of Fracture*, Vol. 44 (1990), 57- 69.
100. A. Carpinteri, S. Valente: "Numerical methods in mixed mode cohesive crack simulation", in *Numerical Methods in Engineering* (Proceedings of the 3rd International NUMETA Conference, Swansea, U.K., 1990), Eds. G.N. Pande,

- J. Middleton, Elsevier Applied Science, London (1990), Vol. 2, 804-811.
101. A. Carpinteri, G. Ferrara, G. Melchiorri, S. Valente: "The four point shear test on single edge notched specimens: An experimental and numerical analysis", in *Fracture Behaviour and Design of Materials and Structures* (Proceedings of the 8th European Conference on Fracture, Torino, Italy, 1990), Ed. D. Firrao, EMAS, West Midlands (1990), Vol. 2, 667-675.
 102. P. Bocca, A. Carpinteri, S. Valente: "Fracture mechanics evaluation of anchorage bearing capacity in concrete", in *Applications of Fracture Mechanics to Reinforced Concrete* (Proceedings of an International Workshop, Torino, Italy, 1990), Ed. A. Carpinteri, Elsevier Applied Science, London (1992), 231-265.
 103. C. Bosco, A. Carpinteri: "Fracture mechanics evaluation of minimum reinforcement in concrete structures", in *Applications of Fracture Mechanics to Reinforced Concrete* (Proceedings of an International Workshop, Torino, Italy, 1990), Ed. A. Carpinteri, Elsevier Applied Science, London (1992), 347-377.
 104. A. Carpinteri: "Scaling of the failure mechanisms in disordered materials", *Proceedings of the Fall Meeting of the Materials Research Society*, Boston, USA, 1990, 29-32.
 105. C. Bosco, A. Carpinteri: "Fracture mechanics as applied to plain and reinforced concrete with particular reference to scaling of experimental data", *Atti della Accademia Nazionale dei Lincei, Classe di Scienze Fisiche, Matematiche e Naturali*, Roma, Italy, 1990, 351-366.
 106. A. Carpinteri: "Cohesive crack tip modelling: Size-scale transition from ductile to brittle failure", *Atti della Accademia Nazionale dei Lincei, Classe di Scienze Fisiche, Matematiche e Naturali*, Roma, Italy, 1990, 59-79.
 107. A. Carpinteri, C. Scavia: "Frictional shake-down in a closed crack subjected to cyclic shear", *Atti del 10° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Pisa, Italy, 1990, Vol. 1, 107-110.

Year 1991

108. P. Bocca, A. Carpinteri, S. Valente: "Mixed mode fracture of concrete", *International Journal of Solids and Structures*, Vol. 27 (1991), 1139-1153.
109. A. Carpinteri: "Size-scale transition from ductile to brittle failure: Structural response vs. crack growth resistance curve", *International Journal of Fracture*, Vol. 51 (1991), 175-186.
110. A. Carpinteri, S.E. Swartz: "Mixed mode crack propagation in concrete", in *Fracture Mechanics Test Methods for Concrete*, Eds. S.P. Shah, A. Carpinteri, Chapman and Hall, London (1991), 129-197.

111. A. Carpinteri: "Fracture mechanics approach to reinforced concrete design", in *Fracture Processes in Concrete, Rock and Ceramics: Macroscopic Modelling and Structural Engineering* (Proceedings of an International RILEM/ESIS Conference, Noordwijk, the Netherlands, 1991), Eds. J.G.M. van Mier, J.G. Rots, A. Bakker, E & FN SPON, London (1991), Vol. 2, 871-886.
112. A. Carpinteri, C. Scavia: "Order and disorder in microcracking distribution: Effects on macrocrack behaviour and maximum load", in *Fracture Processes in Concrete, Rock and Ceramics: Microscopic Material Studies and Materials Engineering* (Proceedings of an International RILEM/ESIS Conference, Noordwijk, the Netherlands, 1991), Eds. J.G.M. van Mier, J.G. Rots, A. Bakker, E & FN SPON, London (1991), Vol. 1, 173-182.
113. C. Bosco, A. Carpinteri: "Fibre toughening and crack growth stability in fibre-reinforced disordered materials", in *Fracture Processes in Concrete, Rock and Ceramics: Microscopic Material Studies and Materials Engineering* (Proceedings of an International RILEM/ESIS Conference, Noordwijk, the Netherlands, 1991), Eds. J.G.M. van Mier, J.G. Rots, A. Bakker, E & FN SPON, London (1991), Vol. 1, 295-306.
114. A. Carpinteri, S. Valente, G. Ferrara, G. Melchiorri: "Friction-toughness interaction in mixed-mode crack propagation of concrete", in *Mixed-Mode Fatigue and Fracture* (Proceedings of an International Conference, Vienna, Austria, 1991), Eds. H.P. Rossmanith, K.J. Miller, MEP, London (1993), 171-183.
115. A. Carpinteri: "Introduzione ai problemi del danneggiamento di materiali e strutture", in *Danneggiamento e Diagnosi di Materiali e Strutture*, Eds. A. Carpinteri, P. Bocca, Pitagora Editrice, Bologna (1991), 3-15.

Year 1992

116. C. Bosco, A. Carpinteri: "Fracture behavior of beam cracked across reinforcement", *Theoretical and Applied Fracture Mechanics*, Vol. 17 (1992), 61- 68.
117. C. Bosco, A. Carpinteri: "Softening and snap-through behavior of reinforced elements", *Journal of Engineering Mechanics (ASCE)*, Vol. 118 (1992), 1564-1577.
118. A. Carpinteri, S. Valente, G. Ferrara, L. Imperato: "Experimental and numerical fracture modelling of a gravity dam", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 1st FraMCoS Conference, Breckenridge, USA, 1992), Ed. Z.P. Bazant, Elsevier Applied Science, London (1992), 351-360.
119. C. Bosco, A. Carpinteri, P.G. Debernardi: "Scale effect on plastic rotational capacity of R.C. beams", in *Fracture Mechanics of Concrete Structures*

(Proceedings of the 1st FraMCoS Conference, Breckenridge, USA, 1992), Ed.

Z.P. Bazant, Elsevier Applied Science, London (1992), 735-740.

120. A. Carpinteri, G. Ferro: "Apparent tensile strength and fictitious fracture energy of concrete: A fractal geometry approach to related size effects", in *Fracture and Damage of Concrete and Rock* (Proceedings of the 2nd International Conference, Vienna, Austria, 1992), Ed. H.P. Rossmanith, E & FN SPON, London (1993), 86- 94.
121. A. Carpinteri, R. Massabò: "Cyclic behavior of reinforced concrete beams: Different responses depending on mechanical and geometrical properties", in *Fracture and Damage of Concrete and Rock* (Proceedings of the 2nd International Conference, Vienna, Austria, 1992), Ed. H.P. Rossmanith, E & FN SPON, London (1993), 237-246.
122. A. Carpinteri: "Cracking of strain-softening materials", in *Static and Dynamic Fracture Mechanics* (CISM, Udine, Italy, 1992), Eds. M.H. Aliabadi, C.A. Brebbia, V.Z. Parton, Computational Mechanics Publications, Southampton (1994), 311-365.
123. A. Carpinteri: "Ductile-brittle size-scale transition: Application of fracture mechanics to large concrete structures", *Scuola di Specializzazione in Costruzioni in Cemento Armato "Fratelli Pesenti"*, Milano, Italy, 1992, 162-200.
124. A. Carpinteri, G. Ferro: "Effetti di scala sulla resistenza dei materiali dovuti alla dispersione statistica dei difetti", *Atti dell'11° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Trento, Italy, 1992, 197-202.
125. A. Carpinteri, R. Massabò: "Discontinuità nella risposta costitutiva di una trave fibrorinforzata inflessa", *Atti dell'11° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Trento, Italy, 1992, 203-208.

Year 1993

126. A. Carpinteri, S. Valente, G. Ferrara and G. Melchiorri: "Is mode II fracture energy a real material property?", *Computers & Structures*, Vol. 48 (1993), 397- 413.
127. A. Carpinteri, C. Scavia: "Energy dissipation due to frictional shake-down on a closed crack subjected to shear", *Meccanica*, Vol. 28 (1993), 347-352.
128. B.L. Karihaloo, A. Carpinteri, M. Elices: "Fracture mechanics of cement mortar and plain concrete", *Advanced Cement Based Materials*, Vol. 1 (1993), 92-105.

129. A. Carpinteri, B. Chiaia, F. Maradei: "Experimental determination of the fractal dimension of disordered fracture surfaces", in *Advanced Technology for Design and Fabrication of Composite Materials and Structures* (Proceedings of an International Symposium, Torino, Italy, 1993), Eds. G.C. Sih, A. Carpinteri, G. Surace, Kluwer Academic Publishers, Dordrecht (1995), 269-292.
130. A. Carpinteri, R. Massabò: "Nonlinear fracture mechanics models for fiber reinforced materials", in *Advanced Technology for Design and Fabrication of Composite Materials and Structures* (Proceedings of an International Symposium, Torino, Italy, 1993), Eds. G.C. Sih, A. Carpinteri, G. Surace, Kluwer Academic Publishers, Dordrecht (1995), 31-48.
131. P. Bocca, C. Bosco, A. Carpinteri, F. Indelicato, I. Iori, S. Valente: "Nondestructive characterization of concrete and damage/fracture diagnosis of civil structures and infrastructures", *Proceedings of the SEM International Conference on Nondestructive Testing of Concrete in the Infrastructure*, Dearborn, USA, 1993, 1-20.
132. A. Carpinteri, B. Chiaia, G. Ferro: "Multifractal nature of material microstructure and size effects on nominal tensile strength", in *Fracture of Brittle, Disordered Materials: Concrete, Rock and Ceramics* (Proceedings of a IUTAM Symposium, Brisbane, Australia, 1993), Eds. G. Baker, B.L. Karihaloo, E & FN SPON, London (1995), 21-34.
133. A. Carpinteri, B. Chiaia, G. Ferro: "Multifractal scaling law for the nominal strength variation of concrete structures", in *Size Effect in Concrete Structures* (Proceedings of a JCI International Workshop, Sendai, Japan, 1993), Eds. H. Mihashi, H. Okamura, Z.P. Bazant, E & FN SPON, London (1994), 193-206.
134. A. Carpinteri, B. Chiaia: "Fractals, renormalization group theory and scaling laws for strength and toughness of disordered materials", in *Probabilities and Materials: Tests, Models and Applications* (Proceedings of a NATO Advanced Research Workshop, Cachan, France, 1993), Ed. D. Breyse, Kluwer Academic Publishers, Dordrecht (1994), 141-150.
135. A. Carpinteri, R. Massabò: "Comportamento ciclico di elementi strutturali in cemento armato: un approccio basato sulla meccanica della frattura", *Atti del 6° Convegno Nazionale di Ingegneria Sismica*, Perugia, Italy, 1993, 867-876.

Year 1994

136. A. Carpinteri: "Fractal nature of material microstructure and size effects on apparent mechanical properties", *Mechanics of Materials*, Vol. 18 (1994), 89-101; *Internal Report, Laboratory of Fracture Mechanics*, Politecnico di Torino, N. 1/92, 1992.

137. A. Carpinteri: "Scaling laws and renormalization groups for strength and toughness of disordered materials", *International Journal of Solids and Structures*, Vol. 31 (1994), 291-302.
138. A. Carpinteri, G. Ferro: "Size effects on tensile fracture properties: A unified explanation based on disorder and fractality of concrete microstructure", *Materials and Structures (RILEM)*, Vol. 27 (1994), 563-571.
139. A. Carpinteri, G. Ferrara, L. Imperato: "Scaling laws for strength and toughness of disordered materials: A unified theory based on fractal geometry", *Engineering Fracture Mechanics*, Vol. 48 (1994), 673-689.
140. A. Carpinteri, R. Massabò: "Continuous versus discontinuous bridged crack in the description of reinforced material flexural collapse", in *Computational Modelling of Concrete Structures* (Proceedings of the Euro-C 1994 Conference, Innsbruck, Austria 1994), Eds. H. Mang, N. Bicanic, R. de Borst, Pineridge Press, Swansea (1994), 233-242.
141. A. Carpinteri, B. Chiaia: "Multifractal nature of fracture surfaces and size effect on nominal fracture energy", in *Localized Damage: Computer-Aided Assessment and Control* (Proceedings of the 3rd International Conference, Udine, Italy, 1994), Eds. M.H. Aliabadi et al., Computational Mechanics Publications, Southampton (1994), 537-544.
142. A. Carpinteri, G. Ferro: "Variation of tensile strength related to structural size: An experimental and statistical investigation", in *Structural Integrity: Experiments, Models, Applications* (Proceedings of the 10th European Conference on Fracture, Berlin, Germany, 1994), Eds. K.H. Schwalbe, C. Berger, EMAS, West Midlands (1994), Vol. 2, 1429-1438.
143. A. Carpinteri: "Strength and toughness in disordered materials: Complete and incomplete similarity", in *Size-Scale Effects in the Failure Mechanisms of Materials and Structures* (Proceedings of a IUTAM Symposium, Torino, Italy, 1994), Ed. A. Carpinteri, E & FN SPON, London (1996), 3-26.
144. A. Brencich, A. Carpinteri, C. Scavia: "Effetti del disordine sull'interazione tra una fessura dominante e una distribuzione di microfessure al suo apice", *Atti del 10° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Torino, Italy, 1994, 67- 73.
145. A. Carpinteri, G. Ferro: "Influenza del disordine microstrutturale sulla variazione della resistenza a trazione dei materiali", *Atti del 10° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Torino, Italy, 1994, 139-150.

146. A. Carpinteri, B. Chiaia: "Multifrattalità delle superfici di frattura nei materiali disordinati: Effetti di scala sull'energia di frattura", *Atti del 10° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Torino, Italy, 1994, 279-287.

Year 1995

147. A. Carpinteri, B. Chiaia, G. Ferro: "Size effects on nominal tensile strength of concrete structures: Multifractality of material ligaments and dimensional transition from order to disorder", *Materials and Structures (RILEM)*, Vol. 28 (1995), 311-317.
148. A. Carpinteri, B. Chiaia: "Multifractal nature of concrete fracture surfaces and size effects on nominal fracture energy", *Materials and Structures (RILEM)*, Vol. 28 (1995), 435-443.
149. A. Carpinteri, F. Maradei: "Three-jack solution to obtain a truly stable and symmetric tensile concrete test", *Experimental Mechanics*, Vol. 35 (1995), 19-23.
150. C. Bosco, A. Carpinteri: "Discontinuous constitutive response of brittle matrix fibrous composites", *Journal of the Mechanics and Physics of Solids*, Vol. 43 (1995), 261-274.
151. A. Carpinteri: "Scaling laws and renormalization groups for strength and toughness of disordered materials – Author's closure to a letter by Chunsheng Lu to the Editor", *International Journal of Solids and Structures*, Vol. 32 (1995), 3373-3375.
152. A. Brencich, A. Carpinteri: "Interaction of a main crack with ordered distributions of microcracks", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 2nd International FraMCoS Conference, Zürich, Switzerland, 1995), Ed. F.H. Wittmann, Aedificatio Publishers, Freiburg (1995), Vol. 1, 363-372.
153. A. Carpinteri, G. Ferro, S. Invernizzi: "A truncated statistical model for analyzing the size-effect on tensile strength of concrete structures", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 2nd International FraMCoS Conference, Zürich, Switzerland, 1995), Ed. F.H. Wittmann, Aedificatio Publishers, Freiburg (1995), Vol. 1, 557-570.
154. A. Carpinteri, B. Chiaia: "Multifractal scaling law for the fracture energy variation of concrete structures", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 2nd International FraMCoS Conference, Zürich, Switzerland, 1995), Ed. F.H. Wittmann, Aedificatio Publishers, Freiburg (1995), Vol. 1, 581-596.
155. A. Carpinteri, S. Valente, F.P. Zhou, G. Ferrara, G. Melchiorri: "Crack propagation in concrete specimens subjected to sustained loads", in *Fracture Mechanics of*

Concrete Structures (Proceedings of the 2nd International FraMCoS Conference, Zürich, Switzerland, 1995), Ed. F.H. Wittmann, Aedificatio Publishers, Freiburg (1995), Vol. 2, 1315-1328.

156. A. Carpinteri, R. Massabò: "Approximate analytical fracture mechanics approach to the design of concrete structures", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 2nd International FraMCoS Conference, Zürich, Switzerland, 1995), Ed. F.H. Wittmann, Aedificatio Publishers, Freiburg (1995), Vol. 3, 1671-1684.
157. A. Carpinteri, B. Chiaia: "A multifractal approach to the strength and toughness scaling of concrete structures", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 2nd International FraMCoS Conference, Zürich, Switzerland, 1995), Ed. F.H. Wittmann, Aedificatio Publishers, Freiburg (1995), Vol. 3, 1773-1792.
158. A. Carpinteri, B. Chiaia, G. Ferro: "Multifractal scaling law: An extensive application to nominal strength size effect of concrete structures", *Atti del Dipartimento di Ingegneria Strutturale*, Politecnico di Torino, N. 51, 1995.
159. A. Carpinteri: "La tendenza nella fisica al superamento degli schemi precostituiti: Il caso dei sistemi complessi", *Prolusione alla Cerimonia di Inaugurazione del 98° Anno Accademico Teodoriano*, Caserta, Italy, 1995, 11-44.
160. A. Carpinteri, R. Massabò: "Effetti dimensionali nella risposta a flessione di compositi fibrorinforzati: Doppia transizione fragile-duttile-fragile", *Atti del 12° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Napoli, Italy, 1995, Vol. 5, 129-134.
161. A. Carpinteri, B. Chiaia: "Leggi di scala multifrattali nel comportamento a rottura dei materiali disordinati", *Atti del 12° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Napoli, Italy, 1995, Vol. 5, 147-152.
162. A. Brencich, A. Carpinteri: "Effetti statistici di una distribuzione disordinata di microfessure su una fessura dominante: schermatura ed aumento di tenacità", *Atti del 12° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Napoli, Italy, 1995, Vol. 5, 165-170.
163. A. Carpinteri, G. Ferro, S. Invernizzi: "Un modello statistico multiparametrico per lo studio degli effetti di scala sulla resistenza", *Atti del 12° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Napoli, Italy, 1995, Vol. 5, 275- 280.
164. A. Carpinteri, G. Ferro, S. Invernizzi: "Un approccio statistico per la verifica della legge di scala multifrattale sulla resistenza dei materiali disordinati", *Atti dell'11°*

Convegno Nazionale del Gruppo Italiano Frattura (IGF), Brescia, Italy, 1995, 331-344.

165. A. Carpinteri, G. Ferro: "Linearizzazione della legge di scala multifrattale sulla resistenza a trazione dei materiali disordinati", *Atti del 9° Convegno Italiano di Meccanica Computazionale*, Catania, Italy, 1995, 105-108.

Year 1996

166. A. Carpinteri, B. Chiaia: "Crack-resistance behavior as a consequence of self-similar fracture topologies", *International Journal of Fracture*, Vol. 76 (1996), 327-340.
167. A. Brencich, A. Carpinteri: "Interaction of a main crack with ordered distributions of microcracks: A numerical technique by displacement discontinuity boundary elements", *International Journal of Fracture*, Vol. 76 (1996), 373-389.
168. A. Carpinteri, R. Massabò: "Bridged versus cohesive crack in the flexural behavior of brittle-matrix composites", *International Journal of Fracture*, Vol. 81 (1996), 125-145.
169. A. Carpinteri, G.P. Yang: "Fractal dimension evolution of microcrack net in disordered materials", *Theoretical and Applied Fracture Mechanics*, Vol. 25 (1996), 73-81.
170. A. Carpinteri, C. Scavia, G.P. Yang: "Microcrack propagation, coalescence and size effects in compression", *Engineering Fracture Mechanics*, Vol. 54 (1996), 335-347.
171. A. Carpinteri, B. Chiaia: "Size effects on concrete fracture energy: Dimensional transition from order to disorder", *Materials and Structures (RILEM)*, Vol. 29 (1996), 259-266.
172. A. Carpinteri, B. Chiaia: "Power scaling laws and dimensional transitions in solid mechanics", *Chaos, Solitons & Fractals*, Vol. 7 (1996), 1343-1364.
173. R. Massabò, A. Carpinteri: "Size effects in the fracture of fiber-reinforced materials", in *Worldwide Advances in Structural Concrete and Masonry*, Chicago, USA, 1996, 462-473.
174. A. Carpinteri, B. Chiaia, K.M. Nematì: "Multifractality of fracture patterns under tensile and compressive stresses in cement-based materials", in *Localized Damage: Computer-Aided Assessment and Control* (Proceedings of the 4th International Conference, Fukuoka, Japan, 1996), Eds. H. Nisitani et al., Computational Mechanics Publications, Southampton (1996), 21-36.

175. A. Carpinteri, R. Massabò: "Fracture instabilities and scale effects in brittle solids and brittle matrix fibrous composites", in *Mechanisms and Mechanics of Damage and Failure* (Proceedings of the 11th European Conference on Fracture, Poitiers, France, 1996), Ed. J. Petit, EMAS, West Midlands (1996), Vol. 1, 21-30.
176. A. Carpinteri, I. Monetto: "Fracture evolution and snap-back instability in multi- cracked finite plates", in *Mechanisms and Mechanics of Damage and Failure* (Proceedings of the 11th European Conference on Fracture, Poitiers, France, 1996), Ed. J. Petit, EMAS, West Midlands (1996), Vol. 1, 431-436.
177. A. Brencich, A. Carpinteri: "Microcrack toughening: Mutual interactions and energy dissipative mechanisms", in *Mechanisms and Mechanics of Damage and Failure* (Proceedings of the 11th European Conference on Fracture, Poitiers, France, 1996), Ed. J. Petit, EMAS, West Midlands (1996), Vol. 1, 467-472.
178. C. Bosco, A. Carpinteri, M.El-Khatieb, G. Ferro: "Ductile-brittle transition for reinforced concrete beams: Experimental and numerical investigation", in *Mechanisms and Mechanics of Damage and Failure* (Proceedings of the 11th European Conference on Fracture, Poitiers, France, 1996), Ed. J. Petit, EMAS, West Midlands (1996), Vol. 3, 1865-1870.
179. A. Carpinteri, B. Chiaia, G. Ferro: "Effetti dimensionali sul collasso del calcestruzzo sollecitato in Modo II e III", *Atti del 12° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Parma, Italy, 1996, 125-136.
180. A. Carpinteri: "Self-similarity and fractality in microcrack coalescence and solid rupture", in *Fractals and Fractional Calculus in Continuum Mechanics*, CISM Courses and Lectures, N. 381, Udine, Italy, 1996, 1-55.

Year 1997

181. A. Carpinteri, G. Ferro, S. Invernizzi: "The nominal tensile strength of disordered materials: A statistical fracture mechanics approach", *Engineering Fracture Mechanics*, Vol. 58 (1997), 421-435.
182. A. Carpinteri, B. Chiaia, K.M. Nematì: "Complex fracture energy dissipation in concrete under different loading conditions", *Mechanics of Materials*, Vol.26 (1997), 93-108.
183. A. Carpinteri, B. Chiaia, P. Bocca: "Size-dependence of strength and fracture properties of brick masonry walls", *Journal of Engineering Mechanics (ASCE)*, Vol. 123 (1997), 816-822.
184. A. Carpinteri, B. Chiaia: "Multifractal scaling laws in the breaking behavior of disordered materials", *Chaos, Solitons & Fractals*, Vol. 8 (1997), 135-150.

185. A.Carpinteri, B. Chiaia, G. Ferro: "A new explanation for size effects on the flexural strength of concrete", *Magazine of Concrete Research*, Vol. 49 (1997), 45-53.
186. A. Carpinteri, G. P. Yang: "The damage process in a finite-sized brittle specimen with interacting microcracks", *International Journal of Fatigue & Fracture of Engineering Materials and Structures*, Vol. 20 (1997), 1105-1115.
187. A. Carpinteri, G.P. Yang: "Size effects in brittle specimen with microcrack interaction", *Computers & Structures*, Vol. 63 (1997), 429-437.
188. A. Carpinteri, S. Valente, F.P. Zhou, G. Ferrara, G. Melchiorri: "Tensile and flexural creep rupture tests on partially-damaged concrete specimens", *Materials and Structures (RILEM)*, Vol. 30 (1997), 269-276.
189. A. Carpinteri, R. Massabò: "Continuous vs discontinuous bridged crack model of fiber-reinforced materials in flexure", *International Journal of Solids and Structures*, Vol. 34 (1997), 2321-2338.
190. A. Carpinteri, R. Massabò: "Reversal in failure scaling transition of fibrous composites", *Journal of Engineering Mechanics (ASCE)*, Vol. 123 (1997), 107-114.
191. A Carpinteri, B. Chiaia: "The fractal route to fracture: Achievements and open issues", in *Advances in Fracture Research* (Proceedings of the 9th International Conference on Fracture, Sydney, Australia, 1997), Eds. B.L. Karihaloo et al., Pergamon, Amsterdam (1997), Vol. 2, 701-712.
192. M. Borri-Brunetto, A. Carpinteri, B. Chiaia: "Lacunarity of the contact domain between elastic bodies with rough boundaries", in *Probabilities and Materials: Tests, Models and Applications for the 21st Century* (Proceedings of a NATO Advanced Research Workshop, Perm, Russia, 1997), Ed. G.N. Frantziskonis, Kluwer Academic Publishers, Dordrecht (1998), 45-64.
193. A. Carpinteri: "Fracture instabilities in heterogeneous materials: Brittleness, size effects and fractality", in *Material Instabilities in Solids* (Proceedings of a IUTAM Symposium, Delft, the Netherlands, 1997), Eds. R. de Borst, E. van der Giessen, John Wiley & Sons, Chichester (1998), 339-354.
194. A. Carpinteri: "Irregular and anomalous mechanical responses of heterogeneous composite materials: Fractals, catastrophes and scaling laws", in *Composite Materials and Structures* (Proceedings of the 1st Hellenic Conference, Xanthi, Greece, 1997), Eds. S.A. Paipetis, E.E. Gdoutos, Vol. 2, 1-30.
195. A. Carpinteri, P. Cornetti: "Gli operatori statico e cinematico per le lastre a doppia curvatura: Dualità in base al Principio dei Lavori Virtuali", *Atti del 13° Congresso*

Nazionale di Meccanica Teorica ed Applicata (AIMETA), Siena, Italy, 1997, Vol. 3, 37-42.

196. A. Carpinteri, B. Chiaia, S. Invernizzi: "Aspetti frattali e correlativi delle superfici generate nelle rotture fragili", *Atti del 13° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Siena, Italy, 1997, Vol. 3, 43-48.
197. A. Carpinteri, G. Ferro: "Influenza del numero di fragilità sul comportamento a rottura delle strutture in calcestruzzo e valutazione della minima armatura", *Atti del 13° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Siena, Italy, 1997, Vol. 4, 7-12.
198. A. Carpinteri, B. Chiaia, S. Invernizzi: "Analisi tridimensionale delle superfici frattali generate nel processo di rottura del calcestruzzo", *Atti del 13° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Cassino, Italy, 1997, 175-184.
199. A. Carpinteri, B. Chiaia: "Misure non-euclidee delle grandezze fisiche e leggi di scala in meccanica della frattura", *Atti del Convegno Nazionale sulla Misura delle Grandezze Fisiche in Memoria di Evangelista Torricelli*, Faenza, Italy, 1997, 191- 204.
200. A. Carpinteri, I. Monetto: "Legami costitutivi e domini di resistenza dei materiali tipici dell'edilizia storica e monumentale", in *La Questione Sismica* (Atti del Seminario sulla Protezione del Patrimonio Culturale, Roma, Italy, 1997), 485-496.

Year 1998

201. A. Brencich, A. Carpinteri: "Stress field interaction and strain energy distribution between a stationary main crack and its process zone", *Engineering Fracture Mechanics*, Vol. 59 (1998), 797-814.
202. A. Carpinteri, G. Ferro: "Scaling behaviour and dual renormalization of experimental tensile softening responses", *Materials and Structures (RILEM)*, Vol. 31 (1998), 303-309.
203. A. Carpinteri, F. Ciola: "Influence of cracking on tensile behavior of brittle materials", *Theoretical and Applied Fracture Mechanics*, Vol. 29 (1998), 67-74.
204. A. Carpinteri, B. Chiaia, G. Ferro: "Scale dependence of tensile strength of concrete specimens: A multifractal approach", *Magazine of Concrete Research*, Vol. 50 (1998), 237-246.
205. A. Carpinteri, B. Chiaia, P. Bocca: "Size-dependence of strength and fracture properties of brick masonry walls – Authors' closure to a letter by Z.P. Bazant to the Editor", *Journal of Engineering Mechanics (ASCE)*, Vol. 124 (1998), 1300- 1301.

206. A. Carpinteri, B. Chiaia: "A fractal model for simulating the formation of microcracks in the fracture process zone and a theoretical explanation of the size effect of the fracture energy of concrete – Discussion on a paper by X.H. Ji, S.Y.N. Chan and N.Q. Feng", *Magazine of Concrete Research*, Vol. 50 (1998), 369-370.
207. R. Massabò, A. Carpinteri, R. Gettu: "Characterizing bridged cracks in fibrous high-strength concrete", *Proceedings of the 12th ASCE Conference on Engineering Mechanics*, San Diego, USA, 1998, 1195-1198.
208. A. Carpinteri, R. Massabò, R. Gettu: "Bridging mechanisms in high-strength fiber reinforced concrete", in *Computational Modelling of Concrete Structures* (Proceedings of the Euro-C 1998 Conference, Badgastein, Austria, 1998), Eds. R. de Borst et al., A.A. Balkema, Rotterdam (1998), Vol. 1, 23-31.
209. A. Carpinteri, B. Chiaia: "Embrittlement and decrease of apparent strength in large-sized concrete structures", in *Computational Modelling of Concrete Structures* (Proceedings of the Euro-C 1998 Conference, Badgastein, Austria, 1998), Eds. R. de Borst et al., A.A. Balkema, Rotterdam (1998), Vol. 2, 715-730; *Proceedings of the Indian Academy of Sciences (Sādhana)*, Bangalore, India, 2002, Vol. 27, Part 4, 425-448.
210. A. Carpinteri, G. Ferro, G. Ventura: "Material and crack discontinuities: Application of an element free augmented lagrangian method", in *Damage and Fracture Mechanics: Computer Aided Assessment and Control* (Proceedings of the 5th International Conference, Bologna, Italy, 1998), Eds. A. Carpinteri, C.A. Brebbia, Computational Mechanics Publications, Southampton (1998), 237-246.
211. A. Carpinteri, F. Ciola, N. Pugno: "Numerical methods for the strain-softening response of concrete in uniaxial compression", in *Damage and Fracture Mechanics: Computer Aided Assessment and Control* (Proceedings of the 5th International Conference, Bologna, Italy, 1998), Eds. A. Carpinteri, C.A. Brebbia, Computational Mechanics Publications, Southampton (1998), 297-306.
212. A. Carpinteri, G. Ferro: "A fracture mechanics approach to failure mode scaling in concrete beams", in *Fracture from Defects* (Proceedings of the 12th European Conference on Fracture, Sheffield, U.K., 1998), Eds. M.W. Brown, E.R. de los Rios, K.J. Miller, EMAS, West Midlands (1998), Vol. 3, 1515-1520.
213. A. Carpinteri, B. Chiaia, S. Invernizzi: "Fracture behaviour of a solid with random porosity: Experimental analysis and size-effects", in *Fracture from Defects* (Proceedings of the 12th European Conference on Fracture, Sheffield, U.K., 1998), Eds. M.W. Brown, E.R. de los Rios, K.J. Miller, EMAS, West Midlands (1998), Vol. 3, 1557-1562.

214. A. Carpinteri, B. Chiaia, S. Invernizzi: "Three-dimensional fractal analysis of microstructural morphologies in concrete", in *Fracture Mechanics of Concrete Structures: Fracture Properties and Parameters* (Proceedings of the 3rd International FraMCoS Conference, Gifu, Japan, 1998), Eds. H. Mihashi, K. Rokugo, Aedificatio Publishers, Freiburg (1998), Vol. 1, 281-292.
215. M. Borri-Brunetto, A. Carpinteri, B. Chiaia: "Contact, closure and friction behaviour of rough crack concrete surfaces", in *Fracture Mechanics of Concrete Structures: Structural Applications and Size Effect* (Proceedings of the 3rd International FraMCoS Conference, Gifu, Japan, 1998), Eds. H. Mihashi, K. Rokugo, Aedificatio Publishers, Freiburg (1998), Vol. 3, 1635-1644.
216. A. Carpinteri, F. Ciola, N. Pugno, G. Ferrara, M.E. Gobbi: "Application of the Boundary Element Method to the compressive strain-softening behaviour of concrete", in *Fracture Mechanics of Concrete Structures: Structural Applications and Size Effect* (Proceedings of the 3rd International FraMCoS Conference, Gifu, Japan, 1998), Eds. H. Mihashi, K. Rokugo, Aedificatio Publishers, Freiburg (1998), Vol. 3, 1949-1962.
217. A. Carpinteri, F. Ciola, N. Pugno: "Il metodo degli elementi di contorno nello studio del comportamento elasto-softening dei materiali fragili", *Atti del 14° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Trento, Italy, 1998, 29- 36.
218. A. Carpinteri, G. Ferro, G. Ventura: "Un modello numerico del tipo element-free per la valutazione della singolarità tensionale all'apice di una fessura", *Atti del 14° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Trento, Italy, 1998, 45- 52.
219. A. Carpinteri, B. Chiaia, S. Invernizzi: "Rilievo ed analisi frattale della distribuzione dei difetti nel calcestruzzo", *Atti del 14° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Trento, Italy, 1998, 275-282
220. A. Carpinteri: "Frattali, catastrofi e leggi di scala nella meccanica dei materiali", *Quaderni della Accademia delle Scienze di Torino*, Torino, Italy, 1998, 18-36.

Year 1999

221. A. Carpinteri, G. Ferro, I. Monetto: "Scale effects in uniaxially compressed concrete specimens", *Magazine of Concrete Research*, Vol. 51 (1999), 217-225.
222. M. Borri-Brunetto, A. Carpinteri, B. Chiaia: "Scaling phenomena due to fractal contact in concrete and rock fractures", *International Journal of Fracture*, Vol. 95 (1999), 221-238.

- 223. A. Carpinteri, B. Chiaia, S. Invernizzi: "Three-dimensional fractal analysis of concrete fracture at the meso-level", *Theoretical and Applied Fracture Mechanics*, Vol. 31 (1999), 163-172.
- 224. A. Carpinteri, I. Monetto: "Snap-back analysis of fracture evolution in multi-cracked solids using boundary element method", *International Journal of Fracture*, Vol. 98 (1999), 225-241.
- 225. A. Carpinteri, G. Ferro: "Anomalous and irregular mechanical behaviour in heterogeneous materials: Snap-back instabilities and fractal cracking", *Journal of the Mechanical Behavior of Materials*, Vol. 11 (1999), 23-29.
- 226. A. Carpinteri, B. Chiaia, P. Cornetti: "A scale-independent damage model for concrete", in *Materials for Buildings and Structures* (Proceedings of the International Conference on Advanced Materials and Processes, EUROMAT 99, Munich, Germany, 1999), Ed. F.H. Wittmann, Wiley-VCH, Weinheim (2000), Vol. 6, 132-137.
- 227. A. Carpinteri, B. Chiaia, P. Cornetti: "A scale-independent cohesive crack model for concrete", in *Construction Materials – Theory and Applications, Hans-Wolf Reinhardt zum 60. Geburtstag*, Ed. H. R. Eligehausen, Ibidem-Verlag, Stuttgart (1999), 75-84.
- 228. A. Carpinteri, G. Ferro, G. Ventura: "Analisi di solidi elastici fessurati e disomogenei mediante tecniche element-free", *Atti del 12° Convegno Italiano di Meccanica Computazionale*, Napoli, Italy, 1999, 45-48.
- 229. A. Carpinteri, P. Cornetti: "Effetti di scala emergenti dalla localizzazione frattale del danneggiamento", *Atti del 14° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Como, Italy, 1999, CD-ROM, Paper N. 211.
- 230. A. Carpinteri, G. Ferro, G. Ventura: "Un modello numerico element-free per lo studio di solidi elastici fessurati", *Atti del 14° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Como, Italy, 1999, CD-ROM, Paper N. 212.
- 231. A. Carpinteri, S. Invernizzi: "Caratterizzazione multiscala dei materiali porosi e disordinati", *Atti del 14° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Como, Italy, 1999, CD-ROM, Paper N. 213.
- 232. A. Carpinteri, N. Pugno: "Intensificazione degli sforzi, funzione di forma e numero di fragilità per elementi strutturali provvisti di angoli rientranti", *Atti del 14° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Como, Italy, 1999, CD-ROM, Paper N. 214.

233. A. Carpinteri, B. Chiaia, S. Invernizzi: "Possibili applicazioni della geometria frattale in ingegneria sismica", *Atti del 9° Convegno Nazionale di Ingegneria Sismica*, Torino, Italy, 1999, CD-ROM, Paper N. A1.
234. A. Carpinteri, G. Ferro, C. Bosco, M. El-Khatieb: "Scale-effects and transitional failure phenomena of reinforced concrete beams in flexure", in *Minimum Reinforcement in Concrete Members*, Ed. A. Carpinteri, Elsevier Science, Amsterdam (1999), 1-30.
235. A. Carpinteri, S. Valente, F.P. Zhou, G. Ferrara, G. Melchiorri: "Creep crack growth in concrete structures: Cohesive crack model in Mode I and Mixed-Mode loading conditions", in *Computational Fracture Mechanics in Concrete Technology*, Eds. A. Carpinteri, M.H. Aliabadi, WIT Press, Boston (1999), 193-223.
236. A. Carpinteri: "Introduction", in *Nonlinear Crack Models for Nonmetallic Materials*, Ed. A. Carpinteri, Kluwer Academic Publishers, Dordrecht (1999), 1- 25.
237. A. Carpinteri, R. Massabò, A. Brencich: "Comparisons and Conclusions", in *Nonlinear Crack Models for Nonmetallic Materials*, Ed. A. Carpinteri, Kluwer Academic Publishers, Dordrecht (1999), 285-309.
238. A. Carpinteri: "Fracture mechanics and fractal morphologies: Relevance of the non-integer scale-exponents", *Quaderni della Accademia delle Scienze di Torino, Giornata in Memoria di P. Cicala*, Torino, Italy, 1999, 173-199.
239. A. Carpinteri: "La geometria della natura non è euclidea: Gerarchia, disordine, frattalità", *Prolusione alla Cerimonia di Inaugurazione del 100° Anno Accademico Teodoriano*, Caserta, Italy, 1999, 17-43.

Year 2000

240. A. Brencich, A. Carpinteri: "A heuristic approach to microcracking and fracture for ceramics with statistical consideration", *Theoretical and Applied Fracture Mechanics*, Vol. 33 (2000), 135-143.
241. A. Carpinteri, F. Ciola: "Influence of damage and disorder on structural response of quasi-brittle materials", *Mechanics of Cohesive-Frictional Materials*, Vol. 5 (2000), 255-262.
242. A. Carpinteri, B. Chiaia, S. Invernizzi: "Direct fractal measurement of fracture surfaces – Letter to the Editor and comments on a paper by H. Xie and J. Wang", *International Journal of Solids and Structures*, Vol. 37 (2000), 4623-4625.

243. A. Carpinteri, G. Ferro, I. Monetto: "Scale effects in uniaxially compressed concrete specimens – Authors' closure to a letter by E. Arioglu, N. Arioglu and C. Girgin to the Editor", *Magazine of Concrete Research*, Vol. 52 (2000), 395-398.
244. A. Carpinteri, P. Cornetti: "Scaling laws in solid mechanics: static, kinematic and energy dissipation aspects", in *Damage and Fracture Mechanics: Computer Aided Assessment and Control* (Proceedings of the 6th International Conference, Montreal, Canada, 2000), Eds. A.P.S. Selvadurai, C.A. Brebbia, WIT Press, Southampton (2000), 3-12.
245. A. Carpinteri, B. Chiaia, P. Cornetti: "Fractal mechanics of damage and fracture in disordered media", in *Role of Mechanics for Development of Science and Technology* (Proceedings of the 3rd International Meso-Mechanics Conference, Xi'an, China, 2000), Ed. G.C. Sih, Tsinghua University Press, Beijing (2000), Vol. 2, 1015-1030.
246. A. Carpinteri, G. Ferro, G. Ventura: "The bridged crack model for the analysis of fiber-reinforced composite materials", in *Advances in Composite Materials and Structures* (Proceedings of the 7th International Conference, Bologna, Italy, 2000), Eds. W.P. de Wilde, W.R. Blain, C.A. Brebbia, WIT Press, Southampton (2000), 301-310.
247. A. Carpinteri, S. Invernizzi: "Fractal characterization of concrete damage in the strain-softening regime", in *Fracture Mechanics: Applications and Challenges* (Proceedings of the 13th European Conference on Fracture, San Sebastian, Spain, 2000), Eds. M. Fuentes et al., Elsevier Sciences (2000), Paper N. 2V.83; *Atti del 15° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Bari, Italy, 2000, 407-414.
248. A. Carpinteri, G. Ferro, G. Ventura: "Il modello del bridged-crack per i calcestruzzi ad alte prestazioni", *Atti del 15° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Bari, Italy, 2000, 17-26.
249. A. Carpinteri, P. Cornetti: "La frattura nei materiali quasi-fragili: Una teoria unificata degli effetti di scala", *Atti del 15° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Bari, Italy, 2000, 97-104.
250. A. Carpinteri, N. Pugno: "Structures with re-entrant corners", *Atti del 15° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Bari, Italy, 2000, 391- 398.
251. A. Carpinteri, B. Chiaia, P. Cornetti: "A fractional calculus approach to the mechanics of fractal media", *Rendiconto del Seminario Matematico dell'Università e del Politecnico di Torino*, Vol. 58 (2000), 57-68.

Year 2001

- 252. A. Konstantinidis, G. Frantziskonis, A. Carpinteri, E.C. Aifantis: "Size effects on tensile strength and fracture energy in concrete: Wavelet vs. fractal approach", *Journal of the Mechanical Behavior of Materials*, Vol. 12 (2001), 63-75.
- 253. G. Efraimidis, A. Carpinteri, E.C. Aifantis: "Griffith's theory versus gradient elasticity in the evaluation of porous materials tensile strength", *Journal of the Mechanical Behavior of Materials*, Vol. 12 (2001), 95-105.
- 254. G. Efraimidis, A. Carpinteri, E.C. Aifantis: "Multifractal scaling law versus gradient elasticity in the evaluation of disordered materials compressive strength", *Journal of the Mechanical Behavior of Materials*, Vol. 12 (2001), 107-120.
- 255. A. Carpinteri, F. Ciola, N. Pugno: "Boundary element method for the strain-softening response of quasi-brittle materials in compression", *Computers & Structures*, Vol. 79 (2001), 389-401.
- 256. A. Carpinteri, F. Ciola, N. Pugno, G. Ferrara, M.E. Gobbi: "Size-scale and slenderness influence on the compressive strain-softening behaviour of concrete", *International Journal of Fatigue & Fracture of Engineering Materials and Structures*, Vol. 24 (2001), 441-450.
- 257. A. Carpinteri, S. Invernizzi: "Influence of damage on the fractal properties of concrete subjected to pure tension", *Materials and Structures (RILEM)*, Vol. 34 (2001), 605-611.
- 258. A. Carpinteri, B. Chiaia, P. Cornetti: "Static-kinematic duality and the principle of virtual work in the mechanics of fractal media", *Computer Methods in Applied Mechanics and Engineering*, Vol. 191 (2001), 3-19.
- 259. A. Carpinteri, G. Ferro, G. Ventura: "An Augmented Lagrangian Element-Free (ALEF) approach for crack discontinuities", *Computer Methods in Applied Mechanics and Engineering*, Vol.191 (2001), 941-957.
- 260. A. Carpinteri, G. Lacidogna: "Monitoraggio di un edificio in muratura con il metodo delle emissioni acustiche", *Costruire in Laterizio*, Vol. 79 (2001), 62-65.
- 261. A. Carpinteri, G. Lacidogna: "Monitoraggio mediante la tecnica delle emissioni acustiche di un edificio pluripiano con struttura portante in cemento armato", *L'Industria delle Costruzioni*, Vol. 355 (2001), 58-63.
- 262. A. Carpinteri, G. Lacidogna: "Emissioni acustiche: Un metodo non distruttivo di analisi del danneggiamento", *Recupero e Conservazione*, Vol. 39 (2001), 54-56.

263. A. Carpinteri, G. Lacidogna: "Indagini strutturali con le emissioni acustiche", *Modulo*, Vol. 274 (2001), 736-742.
264. A. Carpinteri, G. Lacidogna: "Monitoring a masonry building of the 18th century by the acoustic emission technique", in *Structural Studies, Repairs, and Maintenance of Historical Buildings* (Proceedings of the 7th International Conference, Bologna, Italy, 2001), Ed. C.A. Brebbia, WIT Press, Southampton (2001), 327-337.
265. A. Carpinteri, S. Invernizzi: "Uniaxial tensile test and fractal evaluation of softening damage in concrete", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 4th International FraMCoS Conference, Cachan, France, 2001), Eds. R. de Borst et al., A.A. Balkema Publishers, Lisse (2001), Vol. 1, 19- 25.
266. A. Carpinteri, G. Ferro, G. Ventura: "The bridged crack model for reinforced concrete elements with a non-linear matrix", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 4th International FraMCoS Conference, Cachan, France, 2001), Eds. R. de Borst et al., A.A. Balkema Publishers, Lisse (2001), Vol. 1, 525-532.
267. A. Carpinteri, N. Pugno: "Friction and specimen slenderness influences on dissipated energy density of quasi-brittle materials in compression: An explanation based on fractal fragmentation theory", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 4th International FraMCoS Conference, Cachan, France, 2001), Eds. R. de Borst et al., A.A. Balkema Publishers, Lisse (2001), Vol. 2, 665-668.
268. A. Carpinteri, G. Ferro, G. Ventura: "Element-free crack propagation by partition of unity weighted quadrature", *Proceedings of the 8th International Conference on Civil & Structural Engineering Computing*, Vienna, Austria, 2001, CD-ROM, Paper N. 87.
269. A. Carpinteri, G. Ferro, G. Ventura: "Partition of unity weighted quadrature in meshless methods", *Proceedings of the 2nd European Conference on Computational Mechanics*, Cracow, Poland, 2001, CD-ROM, Paper N. 03-355.
270. A. Carpinteri, G. Ferro, G. Ventura: "The influence of the fibers on the structural responses of reinforced concrete beams", in *Analytical and Computational Fracture Mechanics of Non-Homogeneous Materials* (Proceedings of a IUTAM Symposium, Cardiff, U.K., 2001), Ed. B.L. Karihaloo, Kluwer Academic Publishers, Dordrecht (2002), 41-50.
271. A. Carpinteri, G. Ferro, G. Ventura: "Fracture mechanics models for the analysis of composite materials with a non-linear matrix", in *Advances in Fracture Research* (Proceedings of the 10th International Conference on Fracture,

Honolulu-Hawaii, USA, 2001), Eds. K. Ravi Chandar et al., Elsevier Science, Oxford (2001), CD- ROM, Paper N. ICF10-0489OR.

272. A. Carpinteri, B. Chiaia, P. Cornetti: "Fractals and fractional calculus in solid mechanics", *Proceedings of the 6th National (Greek) Conference on Mechanics, Dedicated to the memory of P.S. Theocaris*, Thessaloniki, Greece, 2001, Vol. 2, 349-358.
273. A. Carpinteri, B. Chiaia, S. Invernizzi: "Influence of material microstructure on the fracture induced by a hard cutting indenter", in *Advances in Fracture and Damage Mechanics* (Proceedings of the 2nd International Conference, Milano, Italy, 2001), Eds. M. Guagliano, M.H. Aliabadi, Hoggar, Geneva (2001), 193-198.
274. A. Carpinteri, B. Chiaia, S. Invernizzi: "Applications of fractal geometry to earthquake engineering", in *Safety and Reliability – Towards a Safer World* (Proceedings of the European Conference on Safety and Reliability, Torino, Italy, 2001), Eds. E. Zio, M. Demichela, N. Piccinini, Politecnico di Torino, Torino (2001), Vol. 3, 1867-1874.
275. A. Carpinteri, S. Invernizzi: "Simulazione numerica della frattura fragile nei fenomeni di contatto", *Atti del 15° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Taormina, Italy, 2001, CD-ROM, Paper N. SS_MFR 08.
276. A. Carpinteri, G. Ferro, G. Ventura: "A multiscale model for the fracture analysis of fiber-reinforced materials", *Atti del 15° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Taormina, Italy, 2001, CD-ROM, Paper N. SS_MFR 02.
277. A. Carpinteri, P. Cornetti: "Size Effect on concrete tensile fracture properties: An interpretation of the fractal approach based on the aggregate grading", *Atti del 15° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Taormina, Italy, 2001, CD-ROM, Paper N. SS_MFR 11.
278. A. Carpinteri, N. Pugno: "Size effects of quasi brittle-materials in compression: An explanation based on fractal fragmentation theory", *Atti del 15° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Taormina, Italy, 2001, CD-ROM, Paper N. SS_MFR 13.
279. A. Carpinteri, N. Pugno: "On the multi-scale damage in aerospace vehicles due to space debris impacts", *Atti delle Giornate di Studio IGF sul Danneggiamento e Frattura dei Materiali in Ambiente Aerospaziale*, Roma, Italy, 2001, 39-44.
280. A. Carpinteri, G. Ferro: "Effetti dimensionali nella fessurazione del calcestruzzo", *Atti delle Giornate di Studio IGF sulla Meccanica della Frattura nel Calcestruzzo ad Alte Prestazioni*, Brescia, Italy, 2001, 1-42.

281. G. Ferro, A. Carpinteri, G. Ventura: "Fibre ed armatura tradizionale negli elementi fessurati in c.a.", *Atti delle Giornate di Studio IGF sulla Meccanica della Frattura nel Calcestruzzo ad Alte Prestazioni*, Brescia, Italy, 2001, 63-86.
282. A. Carpinteri, B. Chiaia, G. Lacidogna: "Valutazione dell'affidabilità statica delle strutture con la tecnica delle emissioni acustiche", *Atti del Convegno Nazionale su Crolli e Affidabilità delle Strutture Civili*, Venezia, Italy, 2001, 245-256.

Year 2002

283. A. Carpinteri, B. Chiaia, S. Invernizzi: "Applications of fractal geometry and renormalization group to the Italian seismic activity", *Chaos, Solitons & Fractals*, Vol. 14 (2002), 917-928.
284. A. Carpinteri, B. Chiaia, P. Cornetti: "A scale-invariant cohesive crack model for quasi-brittle materials", *Engineering Fracture Mechanics*, Vol. 69 (2002), 207-217.
285. A. Carpinteri, P. Cornetti: "A fractional calculus approach to the description of stress and strain localization in fractal media", *Chaos, Solitons & Fractals*, Vol. 13 (2002), 85-94.
286. A. Carpinteri, P. Cornetti: "Size effects on concrete tensile fracture properties: An interpretation of the fractal approach based on the aggregate grading", *Journal of the Mechanical Behavior of Materials*, Vol. 13 (2002), 233-246.
287. A. Carpinteri, G. Ferro, G. Ventura: "The partition of unity quadrature in meshless methods", *International Journal for Numerical Methods in Engineering*, Vol. 54 (2002), 987-1006.
288. N. Pugno, A. Carpinteri: "Strength, stability and size effects in the brittle behaviour of bonded joints under torsion: Theory and experimental assessment", *International Journal of Fatigue & Fracture of Engineering Materials & Structures*, Vol. 25 (2002), 55-62.
289. A. Carpinteri, N. Pugno: "A fractal comminution approach to evaluate the drilling energy dissipation", *International Journal of Numerical and Analytical Methods in Geomechanics*, Vol. 26 (2002), 499-513.
290. A. Carpinteri, N. Pugno: "Fractal fragmentation theory for shape effects of quasi-brittle materials in compression", *Magazine of Concrete Research*, Vol. 54 (2002), 473-480.
291. A. Carpinteri, N. Pugno: "One-, two- and three-dimensional universal laws for

- fragmentation due to impact and explosion", *Journal of Applied Mechanics*, Vol. 69 (2002), 854-856.
292. A. Carpinteri, B. Chiaia, G. Lacidogna: "Onset of catastrophic failure in concrete frames: Safety assessment by acoustic emissions", *Proceedings of the 5th FIB International Conference*, Osaka, Japan, 2002, 55-62.
 293. A. Carpinteri, N. Pugno: "Complexity of the nonlinear forced vibrations in multicracked structures", *Proceedings of the 9th International Congress on Sound and Vibration*, Orlando, USA, 2002, CD-ROM, Paper N. 114.
 294. A. Carpinteri, G. Lacidogna: "Structural monitoring and diagnostics by the acoustic emission technique: Scaling of dissipated energy in compression", *Proceedings of the 9th International Congress on Sound and Vibration*, Orlando, USA, 2002, CD-ROM, Paper N. 166; *Atti del 16° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Catania, Italy, 2002, 495-502.
 295. A. Carpinteri, N. Pugno: "Multi-scale energy dissipation during impact or explosion fragmentation of quasi-brittle materials", in *New Challenges in Mesomechanics* (Proceedings of the 4th International Meso-Mechanics Conference, Aalborg, Denmark, 2002), Eds. R. Pyrz et al., 2002, Vol. 1, 97-103.
 296. M. Borri-Brunetto, B. Chiaia, A. Carpinteri: "A multi-scale analysis of sliding instabilities at rough surfaces", in *New Challenges in Mesomechanics* (Proceedings of the 4th International Meso-Mechanics Conference, Aalborg, Denmark, 2002), Eds. R. Pyrz et al., 2002, Vol. 2, 411-418.
 297. A. Carpinteri, P. Cornetti: "A fractal analysis of concrete mesostructure based on the aggregate grading and related size effects", in *New Challenges in Mesomechanics* (Proceedings of the 4th International Meso-Mechanics Conference, Aalborg, Denmark, 2002), Eds. R. Pyrz et al., 2002, Vol. 2, 485-492.
 298. A. Carpinteri, G. Ferro: "Scale dependence of the dissipated energy density in compression", in *New Challenges in Mesomechanics* (Proceedings of the 4th International Meso-Mechanics Conference, Aalborg, Denmark, 2002), Eds. R. Pyrz et al., 2002, Vol. 2, 509-516.
 299. A. Carpinteri, B. Chiaia, S. Invernizzi: "Interaction of two hard indenters in the cutting process of quasi-brittle materials", in *Fracture Mechanics Beyond 2000* (Proceedings of the 14th European Conference on Fracture, Cracow, Poland, 2002), Eds. A. Neimitz et al., EMAS, Sheffield (2002), Vol. 2, 401-408.
 300. A. Carpinteri, G. Ferro, G. Ventura: "Bridged or cohesive crack in bending of fibre-reinforced beams", in *Fracture Mechanics Beyond 2000* (Proceedings of the 14th European Conference on Fracture, Cracow, Poland, 2002), Eds. A. Neimitz et al., EMAS, Sheffield (2002), Vol. 2, 409-416.

301. A. Carpinteri, N. Pugno: "Towards chaos in the dynamic response of damaged structures", *Atti del 16° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Catania, Italy, 2002, 337-344.
302. A. Carpinteri, G. Ferro, G. Ventura: "Influenza delle fibre nella risposta di elementi in calcestruzzo armato fibrorinforzato", *Atti del 16° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Catania, Italy, 2002, 375-384.
303. A. Carpinteri, P. Cornetti: "A multiscale approach to concrete fracture: The influence of the aggregate grading", *Atti del 16° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Catania, Italy, 2002, 395-406.
304. A. Carpinteri, B. Chiaia, S. Invernizzi: "Influence of microstructure on the fracture induced by a hard cutting indenter", *Atti del 16° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Catania, Italy, 2002, 412-418.
305. A. Carpinteri, M. Paolini (a cura di): *Innovazione nello Sviluppo e nella Progettazione degli Ancoraggi su Calcestruzzo* (Atti del Seminario Tecnico Hilti- Italia, Torino, Italy, 2002).
306. A. Carpinteri, B. Chiaia, P. Cornetti: "On the mechanics of media with fractal or multiscale structure", *Rendiconti della Accademia delle Scienze di Torino*, Vol. 26 (2002), 77-116.

Year 2003

307. A. Carpinteri, N. Pugno: "A multifractal comminution approach for drilling scaling laws", *Powder Technology*, Vol. 131 (2003), 93-98.
308. N. Pugno, A. Carpinteri: "Tubular adhesive joints under axial load", *Journal of Applied Mechanics*, Vol. 70 (2003), 832-839.
309. A. Carpinteri, G. Ferro, G. Ventura: "Size effects on flexural response of reinforced concrete elements with a nonlinear matrix", *Engineering Fracture Mechanics*, Vol. 70 (2003), 995-1013.
310. A. Carpinteri, G. Ferro, G. Ventura: "The partition of unity quadrature in element- free crack modelling", *Computers & Structures*, Vol. 81 (2003), 1783-1794.
311. A. Carpinteri, G. Lacidogna: "Damage diagnostics in concrete and masonry structures by acoustic emission technique", *Facta Universitatis*, Vol. 13 (2003), 755-764.
312. A. Carpinteri, P. Cornetti, F. Barpi, S. Valente: "Cohesive crack model description of ductile to brittle size-scale transition: Dimensional analysis vs. renormalization group theory", *Engineering Fracture Mechanics*, Vol. 70 (2003), 1809-1839.

313. A. Carpinteri, B. Chiaia, P. Cornetti: "On the mechanics of quasi-brittle materials with a fractal microstructure", *Engineering Fracture Mechanics*, Vol. 70 (2003), 2321-2349.
314. M. Borri-Brunetto, A. Carpinteri, S. Invernizzi: "Characterization and mechanical modeling of the abrasion properties of sintered tools with embedded hard particles", *Wear*, Vol. 254 (2003), 635-644.
315. A. Carpinteri, B.L. Karihaloo (Guest Editorial): "Foreword: Size-Scale effects", *Engineering Fracture Mechanics*, Vol. 70 (2003), 2255.
316. A. Carpinteri, B. Chiaia, P. Cornetti: "Problems of Fracture Mechanics and Fatigue – A Solution Guide", Part A, Problems 38-40, Eds. E.E. Gdoutos, C.A. Rodopoulos, J.R. Yates, Kluwer Academic Publishers, Dordrecht (2003), 173-187.
317. A. Carpinteri, G. Ferro: "Fracture assessment in concrete structures", in *Comprehensive Structural Integrity*, Eds. R.A. Ainsworth, K.H. Schwalbe, Elsevier, Amsterdam (2003), Vol. 7, 501-528.
318. A. Carpinteri, G. Ferro, G. Ventura: "Bending behaviour simulations of fibre reinforced beams with rebars by using the bridged crack model", in *Computational Modelling of Concrete Structures* (Proceedings of the Euro-C 2003 Conference, St. Johann im Pongau, Austria, 2003), Eds. N. Bićanić et al., A.A. Balkema Publishers, Lisse (2003), 707-716.
319. A. Carpinteri, G. Lacidogna, N. Pugno: "Acoustic emission to evaluate the energy dissipation during compression of heterogeneous materials", *Proceedings of the 10th International Congress on Sound and Vibration*, Stockholm, Sweden, 2003, Eds. A. Nilsson, H. Bodén, Vol. 3, 1187-1194.
320. A. Carpinteri, N. Pugno: "Offset and sub-harmonic frequency components in the highly nonlinear dynamic response of damaged structures", *Proceedings of the 10th International Congress on Sound and Vibration*, Stockholm, Sweden, 2003, Eds. A. Nilsson, H. Bodén, Vol. 7, 3581-3588.
321. A. Carpinteri, S. Puzzi: "Hysteretic flexural behavior of brittle matrix fibrous composites: the case of two fibers", *Atti del 16° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Ferrara, Italy, 2003, CD-ROM, Paper N. 175-102.
322. A. Carpinteri, G. Lacidogna, N. Pugno: "Acoustic emission during fragmentation of quasi-brittle materials in compression", *Atti del 16° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Ferrara, Italy, 2003, CD-ROM, Paper N. 175-119.

323. A. Carpinteri, P. Cornetti, G. Ventura: "The bridged crack model for modelling longitudinally reinforced concrete beams: Concrete crushing and flexural shear failure", *Atti del 16° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Ferrara, Italy, 2003, CD-ROM, Paper N. 175-133.
324. G. Ferro, A. Carpinteri: "New experimental aspects of concrete in compression", *Atti del 16° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Ferrara, Italy, 2003, CD-ROM, Paper N. 175-134.

Year 2004

325. A. Carpinteri et al.: "Quasibrittle fracture scaling and size effect", *Materials and Structures (RILEM)*, Vol. 37 (2004), 547-568.
326. A. Carpinteri, P. Cornetti, K.M. Kolwankar: "Calculation of the tensile and flexural strength of disordered materials using fractional calculus", *Chaos, Solitons & Fractals*, Vol. 21 (2004), 623-632.
327. A. Carpinteri, P. Cornetti, S. Puzzi: "A stereological analysis of aggregate grading and size effect on concrete tensile strength", *International Journal of Fracture*, Vol. 128 (2004), 233-242; in *Fracture at Multiple Dimensions* (Proceedings of an Interquadrennial ICF Conference, Moscow, Russia, 2003), CD-ROM, Paper N. 15.
328. A. Carpinteri, B. Chiaia, P. Cornetti: "A disordered microstructure material model based on fractal geometry and fractional calculus", *Zeitschrift für Angewandte Mathematik und Mechanik*, Vol. 84 (2004), 128-135.
329. A. Carpinteri, B. Chiaia, P. Cornetti: "A fractal theory for the mechanics of elastic materials", *Materials Science & Engineering - A*, Vol. 365 (2004), 235-240.
330. A. Carpinteri, B. Chiaia, P. Cornetti: "The elastic problem for fractal media: Basic theory and finite element formulation", *Computer & Structures*, Vol. 82 (2004), 499-508.
331. A. Carpinteri, B. Chiaia, P. Cornetti: "Numerical modelization of disordered media via fractional calculus", *Computational Material Science*, Vol. 30 (2004), 155-162.
332. A. Carpinteri, B. Chiaia, P. Cornetti: "A mesoscopic theory of damage and fracture in heterogeneous materials", *Theoretical and Applied Fracture Mechanics*, Vol. 41 (2004), 43-50; in *Advances in Fracture Research* (Proceedings of the 10th International Conference on Fracture, Honolulu-Hawaii, USA, 2001), Eds. K. Ravi Chandar et al., Elsevier Science, Oxford (2001), CD- ROM, Paper N. 128OR.

- 333. A. Carpinteri, B. Chiaia, S. Invernizzi: "Numerical analysis of indentation fracture in quasi-brittle materials", *Engineering Fracture Mechanics*, Vol. 71 (2004), 567- 577.
- 334. M. Borri-Brunetto, A. Carpinteri, B. Chiaia: "The effect of scale and criticality in rock slope stability", *Rock Mechanics and Engineering*, Vol. 37 (2004), 117-126.
- 335. A. Carpinteri, G. Ferro, G. Ventura: "Double brittle-to-ductile transition in bending of fibre reinforced concrete beams with rebars", *International Journal for Numerical and Analytical Methods in Geomechanics*, Vol. 28 (2004), 737-756.
- 336. A. Carpinteri, N. Pugno: "Scaling laws for fragmentation energy dissipation in impacts and explosions", *Mechanics*, Vol. 33 (2004), 1-10.
- 337. A. Carpinteri, N. Pugno: "Evolutionary fractal theory of erosion and experimental assessment on MIR space station", *Wear*, Vol. 257 (2004), 408-413.
- 338. A. Carpinteri, N. Pugno: "Transient coupled theory of drilling and wear", *International Journal of Mechanics and Control*, Vol. 5 (2004), 57-64.
- 339. A. Carpinteri, N. Pugno: "Scale-effects on mean and standard deviation of the mechanical properties of condensed matter: An energy-based unified approach", *International Journal of Fracture*, Vol. 128 (2004), 253-261; in *Fracture at Multiple Dimensions* (Proceedings of an Interquadrennial ICF Conference, Moscow, Russia, 2003), CD ROM, Paper N. 14.
- 340. A. Carpinteri, G. Lacidogna, N. Pugno: "Scaling of energy dissipation in crushing and fragmentation: A fractal and statistical analysis based on particle size distribution", *International Journal of Fracture*, Vol. 129 (2004), 131-139.
- 341. A. Carpinteri, G. Lacidogna, N. Pugno: "A fractal approach for damage detection in concrete and masonry structures by acoustic emission technique", *Acoustique et Techniques*, Vol. 38 (2004), 31-37; in *Acoustical and Vibratory Surveillance Methods and Diagnostic Techniques* (Proceedings of the 5th International Conference CETIM, Senlis, France, 2004), CD-ROM, Paper N. 5.
- 342. A. Carpinteri, L. Dimastrogiovanni, N. Pugno: "Experimental investigation on fractal drilling strength", *Strength, Fracture and Complexity*, Vol. 2 (2004), 1-10.
- 343. A. Carpinteri, G. Ferro, G. Ventura: "A fracture mechanics model for the analysis of reinforced FRC beams", *Proceedings of the 6th RILEM Symposium on Fibre Reinforced Concrete (FRC)*, Varenna, Italy, 2004, 757-766.

- 344. A. Carpinteri, S. Puzzi: "The bridged crack model for the analysis of FRC elements under repeated bending loading", *Proceedings of the 6th RILEM Symposium on Fibre Reinforced Concrete (FRC)*, Varenna, Italy, 2004, 767-776.
- 345. A. Carpinteri, S. Puzzi: "Scaling laws and multi-scale approach to the mechanics of heterogeneous and disordered materials", *Proceedings of the 9th Portuguese Conference on Fracture*, Setúbal, Portugal, 2004, 5-8.
- 346. A. Carpinteri, M. Paggi: "Interface crack propagation in concrete composites: Theoretical analysis of stress-singularities", in *Interface Modeling* (Workshop of the 5th International FraMCoS Conference, Vail, Colorado, USA, 2004), Vol. 2, 20-23.
- 347. A. Carpinteri, G. Lacidogna, N. Pugno: "Damage diagnosis and life-time assessment of concrete and masonry structures by an acoustic emission technique", in *Fracture Mechanics of Concrete and Concrete Structures* (Proceedings of the 5th International FraMCoS Conference, Vail, Colorado, USA, 2004), Eds. V.C. Li et al., Vol. 1, 31-40.
- 348. A. Carpinteri, P. Cornetti, S. Puzzi: "Influence of aggregate grading upon concrete tensile strength: A stereological analysis", in *Fracture Mechanics of Concrete and Concrete Structures* (Proceedings of the 5th International FraMCoS Conference, Vail, Colorado, USA, 2004), Eds. V.C. Li et al., Vol. 1, 463-470.
- 349. M. Borri-Brunetto, A. Carpinteri, B. Chiaia: "A model for concrete perforation based on the concept of drilling strength", in *Fracture Mechanics of Concrete and Concrete Structures* (Proceedings of the 5th International FraMCoS Conference, Vail, Colorado, USA, 2004), Eds. V.C. Li et al., Vol. 1, 491-498.
- 350. A. Carpinteri, S. Invernizzi, G. Lacidogna: "Nonlinear simulation and damage assessment of an historical masonry tower", in *Fracture Mechanics of Concrete and Concrete Structures* (Proceedings of the 5th International FraMCoS Conference, Vail, Colorado, USA, 2004), Eds. V.C. Li et al., Vol. 2, 709-716.
- 351. A. Carpinteri, G. Ferro, G. Ventura: "A fracture mechanics approach to over-reinforced concrete beams", in *Fracture Mechanics of Concrete and Concrete Structures* (Proceedings of the 5th International FraMCoS Conference, Vail, Colorado, USA, 2004), Eds. V.C. Li et al., Vol. 2, 903-910.
- 352. A. Carpinteri, G. Ventura: "Numerical modelling of fiber and steel bar reinforced concrete beams by the bridged crack model", *Proceedings of the Congress on Computational Methods in Applied Sciences and Engineering*, Jyväskylä, Finland, 2004, CD-ROM II, Paper N. 462.

353. A. Carpinteri, G. Ferro: "A fragmentation approach for concrete in compression", in *Advanced Fracture Mechanics for Life Safety Assessments* (Proceedings of the 15th European Conference on Fracture, Stockholm, Sweden, 2004), CD-ROM, Paper N. 29.
354. A. Carpinteri, M. Paggi: "Influence of the interface bonding strength on brittle crack propagation in bi-material structural components", in *Advanced Fracture Mechanics for Life Safety Assessments* (Proceedings of the 15th European Conference on Fracture, Stockholm, Sweden, 2004), CD-ROM, Paper N. 30.
355. A. Carpinteri, S. Puzzi: "Multi-scaling approach in the mechanics of disordered materials", *Proceedings of the 21th International Congress of Theoretical and Applied Mechanics*, Warsaw, Poland, 2004, CD-ROM, Paper N. FSM6_11224.
356. A. Carpinteri, G. Lacidogna: "Structural integrity assessment of medieval towers", *Proceedings of the 4th International Seminar on Structural Analysis of Historical Constructions*, Padova, Italy, 2004, Vol. 1, 523-532.

Year 2005

357. A. Carpinteri, L. Dimastrogiovanni, N. Pugno: "Fractal coupled theory of drilling and wear", *International Journal of Fracture*, Vol. 131 (2005), 131-142.
358. A. Carpinteri, N. Pugno: "Fracture instability and limit strength condition in structures with re-entrant corners", *Engineering Fracture Mechanics*, Vol. 72 (2005), 1254-1267.
359. A. Carpinteri, N. Pugno: "Fractal fragmentation theory for size effects of quasi-brittle materials in compression", *Magazine of Concrete Research*, Vol. 57 (2005), 309-313.
360. A. Carpinteri, N. Pugno: "Are scaling laws on strength of solids related to mechanics or to geometry?", *Nature Materials*, Vol. 4 (2005), 421-423.
361. A. Carpinteri, N. Pugno: "Strength and toughness of micro- and nano-structured materials: Unified influence of composition, grain size and structural dimension", *Review on Advanced Materials Science*, Vol. 10 (2005), 320-324.
362. A. Carpinteri, N. Pugno: "Towards chaos in vibrating damaged structures – Part I: Theory and period doubling", *Journal of Applied Mechanics*, Vol. 72 (2005), 511- 518.
363. A. Carpinteri, N. Pugno: "Towards chaos in vibrating damaged structures – Part II: Parametrical investigation", *Journal of Applied Mechanics*, Vol. 72 (2005), 519-526.

364. A. Carpinteri, N. Pugno: "Fractal rules of mixture for multi-scale fragmentation of heterogeneous materials", *International Journal of Mechanics and Control*, Vol. 6 (2005), 31-37.
365. A. Carpinteri, G. Lacidogna, N. Pugno: "Time-scale effects during damage evolution: A fractal approach based on acoustic emission", *Strength, Fracture and Complexity*, Vol. 3 (2005), 127-135.
366. A. Carpinteri, G. Lacidogna, N. Pugno: "Time scale effects on acoustic emission due to elastic waves propagation in monitored cracking structures", *Physical Mesomechanics*, Vol. 8 (2005), 77-80; *Proceedings of the 11th International Conference on Fracture (ICF)*, Torino, Italy, 2005, CD-ROM, Paper N. 5509; *Atti del 17° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Bologna, Italy, 2004, 107-112.
367. A. Carpinteri, S. Invernizzi: "Numerical analysis of the cutting interaction between indenters acting on disordered materials", *International Journal of Fracture*, Vol. 131 (2005), 143-154.
368. A. Carpinteri, S. Invernizzi, G. Lacidogna: "In situ damage assessment and nonlinear modelling of an historical masonry tower", *Engineering Structures*, Vol. 27 (2005), 387-395.
369. A. Carpinteri, M. Paggi, G. Zavarise: "Snap-back instability in micro-structured composites and its connection with superplasticity", *Strength, Fracture and Complexity*, Vol. 3 (2005), 61-72.
370. A. Carpinteri, M. Paggi: "Size-scale effects on the friction coefficient", *International Journal of Solids and Structures*, Vol. 42 (2005), 2901-2910.
371. A. Carpinteri, M. Paggi: "On the asymptotic stress field in angularly nonhomogeneous materials", *International Journal of Fracture*, Vol. 135 (2005), 267-283.
372. A. Carpinteri, S. Puzzì: "The crack surface anomalous scaling and its connection with the size-scale effects", *International Journal of Fracture*, Vol. 133 (2005), 43-60.
373. A. Carpinteri, P. Cornetti, S. Puzzì: "Scale effects on strength and toughness of grained materials: An extreme value theory approach", *Strength, Fracture and Complexity*, Vol. 3 (2005), 175-188.
374. A. Carpinteri, P. Cornetti, S. Puzzì: "Size effect upon grained materials tensile strength: The increase of the statistical dispersion at the smaller scales", *Theoretical and Applied Fracture Mechanics*, Vol. 44 (2005), 192-199; in *Multiscaling in Applied Science and Emerging Technologies* (Proceedings of the

6th International Meso-Mechanics Conference, Patras, Greece, 2004), Eds. G.C.Sih, Th.B. Kermanidis, Sp.G. Pantelakis, Saradidis Publications, Patras (2004), 393-399.

- 375. A. Carpinteri (Guest Editorial): "Special issue: Selected papers from the 11th International Conference on Fracture, 21-25 March 2005, Torino, Italy", *Strength, Fracture and Complexity*, Vol. 3 (2005), 49-50.
- 376. A. Carpinteri, P. Cornetti, S. Puzzi: "Size effect in grained materials: Extreme value theory approach", *Proceedings of the 11th International Conference on Fracture (ICF)*, Torino, Italy, 2005, CD-ROM, Paper N. 4985; *Atti del 17° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Bologna, Italy, 2004, 130-135.
- 377. A. Carpinteri, M. Paggi, G. Zavarise: "Theoretical and numerical investigation on internal instability phenomena in composite materials", *Proceedings of the 11th International Conference on Fracture (ICF)*, Torino, Italy, 2005, CD-ROM, Paper N. 4991; *Atti del 17° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Bologna, Italy, 2004, 136-141.
- 378. A. Carpinteri, G. Lacidogna: "Structural monitoring and life-time assessment of medieval towers", *Proceedings of the 11th International Conference on Fracture (ICF)*, Torino, Italy, 2005, CD-ROM, Paper N. 5022; *Atti del 17° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Bologna, Italy, 2004, 124-129.
- 379. A. Carpinteri, S. Invernizzi, G. Lacidogna: "Numerical evaluation of cracking and crushing in ancient masonry towers", *Proceedings of the 11th International Conference on Fracture (ICF)*, Torino, Italy, 2005, CD-ROM, Paper N. 5046.
- 380. A. Carpinteri, G. Ferro: "Scale-independent constitutive law for concrete in compression", *Proceedings of the 11th International Conference on Fracture (ICF)*, Torino, Italy, 2005, CD-ROM, Paper N. 5556; *Atti del 17° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Bologna, Italy, 2004, 257-262.
- 381. A. Carpinteri, G. Lacidogna: "Damage evaluation of medieval towers using the acoustic emission technique", in *Structural Studies, Repairs and Maintenance of Heritage Architecture* (Proceedings of the 9th International Conference, Malta, 2005), Ed. C.A. Brebbia, A. Torpiano, WIT Press, Southampton (2005), 557-566.
- 382. A. Carpinteri, G. Lacidogna, N. Pugno: "Creep monitoring in concrete structures by the acoustic emission technique", in *Creep, Shrinkage and Durability of Concrete and Concrete Structures* (Proceedings of the 7th CONCREEP Conference, Nantes, France, 2005), Eds. G. Pijaudier-Cabot, B. Gérard, P. Acker, Hermes Science Publishing, London (2005), 51-56.

383. A. Carpinteri, G. Lacidogna, M. Paggi, N. Pugno: "Acoustic emission monitoring and numerical modelling of a FRP-strengthened concrete structure", *Concrete Repair, Rehabilitation and Retrofitting* (Proceedings of the ICCRRR Conference, Cape Town, South Africa, 2005), Eds. M.G. Alexander et al., Taylor & Francis, London (2006), 1347-1352.
384. M. Paggi, A. Carpinteri, G. Zavarise: "A unified interface constitutive law for the study of fracture and contact problems in heterogeneous materials", in *Analysis and Simulation of Contact Problems* (Proceedings of the 4th Contact Mechanics International Symposium, Hannover, Germany, 2005), Eds. P. Wriggers, U. Nackenhorst, Springer-Verlag, Berlin (2006), 297-304.
385. M. Borri-Brunetto, A. Carpinteri, S. Invernizzi, M. Paggi: "Micro-slip of rough surfaces under cyclic tangential loading", in *Analysis and Simulation of Contact Problems* (Proceedings of the 4th Contact Mechanics International Symposium, Hannover, Germany, 2005), Eds. P. Wriggers, U. Nackenhorst, Springer-Verlag, Berlin (2006), 333-340.
386. P. Cornetti, N. Pugno, A. Carpinteri: "A coupled stress and energy fracture criterion based on discrete crack advancement", *Atti del 17° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Firenze, Italy, 2005, CD-ROM, Paper N. 192.
387. M. Borri-Brunetto, S. Invernizzi, M. Paggi, A. Carpinteri: "Cyclic micro-slip and energy dissipation on elastic rough interfaces", *Atti del 17° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Firenze, Italy, 2005, CD-ROM, Paper N. 219.
388. A. Carpinteri, S. Puzzi: "Indentation size effect in poly-crystalline materials: A fractal geometry interpretation", *Atti del 17° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Firenze, Italy, 2005, CD-ROM, Paper N. 223.
389. G. Lacidogna, M. Paggi, A. Carpinteri: "Delamination in FRP-strengthened structures: Acoustic emission monitoring and numerical modeling", *Atti del 17° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Firenze, Italy, 2005, CD-ROM, Paper N. 225.
390. M. Paggi, A. Carpinteri: "Multi-material junctions with functionally graded materials", *Atti del 17° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Firenze, Italy, 2005, CD-ROM, Paper N. 226.
391. M. Paggi, G. Zavarise, A. Carpinteri: "Softening and snap-back instability in superplastic deformation", *Atti del 17° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Firenze, Italy, 2005, CD-ROM, Paper N. 227.

392. G. Lacidogna, N. Pugno, A. Carpinteri: "Acoustic emission due to compression of brittle materials: Friction vs frictionless boundary condition", *Atti del 17° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Firenze, Italy, 2005, CD-ROM, Paper N. 237.
393. G. Lacidogna, G. Niccolini, A. Carpinteri: "Crack localization in a large-sized R.C. beam through the acoustic emission technique", *Atti del 17° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Firenze, Italy, 2005, CD-ROM, Paper N. 238.
394. M. Ippolito, A. Mattoni, L. Colombo, N. Pugno, A. Carpinteri: "Atomistic simulations versus analytical approaches in fracture", *Atti del 17° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Firenze, Italy, 2005, CD-ROM, Paper N. 290.
395. F. Bosia, N. Pugno, A. Carpinteri: "Modelling harmonic and subharmonic generation using an interaction-box formalism", *Atti del 17° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Firenze, Italy, 2005, CD-ROM, Paper N. 311.
396. G. Ferro, M. Ipperico, V. Pignata, A. Carpinteri: "FRP nel consolidamento strutturale di volte in muratura: Applicazione del modello bridged crack", *Atti del 34° Congresso Nazionale dell'Associazione Italiana per l'Analisi delle Sollecitazioni (AIAS)*, Milano, Italy, 2005, CD-ROM, Sessione Strutture Civili.

Year 2006

397. A. Carpinteri, M. Paggi: "Influence of the intermediate material on the singular stress field in tri-material junctions", *Materials Science*, Vol. 42 (2006), 95-101; *Physico-Chemical Mechanics of Materials*, Vol. 1 (2006), 90-95; *Proceedings of the 11th International Conference on Fracture (ICF)*, Torino, Italy, 2005, CD-ROM, Paper N. 4988; *Atti del 17° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Bologna, Italy, 2004, 263-268.
398. A. Carpinteri, M. Paggi, N. Pugno: "Numerical evaluation of generalized stress-intensity factors in multi-layered composites", *International Journal of Solids and Structures*, Vol. 43 (2006), 627-641.
399. A. Carpinteri, M. Paggi, N. Pugno: "An analytical approach for fracture and fatigue in functionally graded materials", *International Journal of Fracture*, Vol. 141 (2006), 535-547.
400. A. Carpinteri, S. Puzzi: "A fractal approach to indentation size effect", *Engineering Fracture Mechanics*, Vol. 73 (2006), 2110-2122.

401. A. Carpinteri, S. Puzzi: "Fracture mechanics and complexity sciences – Part I. Order emerging from complex systems: Fractals and renormalization group", *Strength, Fracture and Complexity*, Vol. 4 (2006), 189-200.
402. A. Carpinteri, S. Puzzi: "Fracture mechanics and complexity sciences – Part II. Complex behaviour emerging from simple nonlinear rules: Catastrophes and chaos", *Strength, Fracture and Complexity*, Vol. 4 (2006), 201-211.
403. A. Carpinteri, P. Cornetti, S. Puzzi: "Scaling laws and multiscale approach in the mechanics of heterogeneous and disordered materials", *Applied Mechanics Reviews (ASME)*, Vol. 59 (2006), 283-305.
404. A. Carpinteri, N. Pugno: "Thermal loading in multi-layered and/or functionally graded materials: Residual stress field, delamination, fatigue and related size effects", *International Journal of Solids and Structures*, Vol. 43 (2006), 828-841.
405. A. Carpinteri, N. Pugno: "Cracks and re-entrant corners in functionally graded materials", *Engineering Fracture Mechanics*, Vol. 73 (2006), 1279-1291.
406. C. Guiot, P.P. Delsanto, A. Carpinteri, N. Pugno, Y. Mansury, T.S. Deisboeck: "The dynamic evolution of the power exponent in a universal growth model of tumors", *Journal of Theoretical Biology*, Vol. 240 (2006), 459-463.
407. N. Pugno, M. Ciavarella, P. Cornetti, A. Carpinteri: "A generalized Paris' law for fatigue crack growth", *Journal of the Mechanics and Physics of Solids*, Vol. 54 (2006), 1333-1349.
408. P. Cornetti, N. Pugno, A. Carpinteri, D. Taylor: "Finite Fracture Mechanics: A coupled stress and energy failure criterion", *Engineering Fracture Mechanics*, Vol. 73 (2006), 2021-2033.
409. N. Pugno, F. Marino, A. Carpinteri: "Towards a periodic table for the nanomechanical properties of elements", *International Journal of Solids and Structures*, Vol. 43 (2006), 5647-5657.
410. F. Bosia, N. Pugno, A. Carpinteri: "Subharmonic generation in physical systems: An interaction-box approach", *Wave Motion*, Vol. 43 (2006), 689-699.
411. A. Carpinteri, S. Invernizzi, G. Lacidogna: "Numerical assessment of three medieval masonry towers subjected to different loading conditions", *Masonry International*, Vol. 19 (2006), 65-76.
412. A. Carpinteri, G. Lacidogna: "Damage monitoring of an historical masonry building by the acoustic emission technique", *Materials and Structures (RILEM)*, Vol. 39 (2006), 161-167.

413. A. Carpinteri, G. Lacidogna, N. Pugno: "Richter's laws at the laboratory scale interpreted by acoustic emission", *Magazine of Concrete Research*, Vol. 58 (2006), 619-625.
414. A. Carpinteri, G. Lacidogna: "Structural monitoring and integrity assessment of medieval towers", *Journal of Structural Engineering (ASCE)*, Vol.132 (2006), 1681-1690.
415. A. Carpinteri, G. Lacidogna, G. Niccolini: "Critical behaviour in concrete structures and damage localization by acoustic emission", *Key Engineering Materials*, Vol. 312 (2006), 305-310; *Proceedings of the International Workshop on Fracture of Materials: Moving Forwards*, Sydney, Australia, 2006, CD-ROM, Paper N. 634.
416. A. Carpinteri, G. Ferro, G. Ventura: "An augmented lagrangian approach to material discontinuities in meshless methods", *Computational Mechanics*, Vol. 37 (2006), 207-220.
417. A. Carpinteri, Y.-W. Mai, R.O. Ritchie: "Editorial", *International Journal of Fracture*, Vol. 138 (2006), 1-2.
418. A. Carpinteri: "ICF11 Official Speeches", *International Journal of Fracture*, Vol. 138 (2006), 3-11.
419. A. Carpinteri, M. Kitagawa, A. Saxena, B. Wilshire, T. Yokobori, Jr.: "Guest-editorial – Special Issue: Parte I of selected papers presented at symposium and special session ICF11", *Strength, Fracture and Complexity*, Vol. 4, N. 1 (2006), 1.
420. A. Carpinteri, M. Kitagawa, A. Saxena, B. Wilshire, T. Yokobori, Jr.: "Guest-editorial – Special Issue: Parte II of selected papers presented at symposium and special session ICF11", *Strength, Fracture and Complexity*, Vol. 4, N. 2 (2006), 63.
421. A. Carpinteri, J.R. Carmona, G. Ventura: "Modelo analítico para estudiar la propagación de fisuras en modo mixto en elementos de hormigón armado. Aplicación del bridged crack model", *Anales de Mecánica de la Fractura*, Vol. 23 (2006), 103-108.
422. A. Carpinteri, S. Invernizzi, G. Lacidogna: "Cracking simulation in three medieval masonry towers subjected to different loading conditions", in *Computational Modelling of Concrete Structures* (Proceedings of the Euro-C 2006 Conference, Mayrhofen, Tyrol, Austria, 2006), Eds. G. Meschke et al., Taylor & Francis, London (2006), 699-708.
423. N. Pugno, A. Carpinteri, M. Ippolito, A. Mattoni, L. Colombo: "Analytical approaches versus atomistic simulations in fracture", in *Fracture of Nano and*

Engineering Materials and Structures (Proceedings of the 16th European Conference of Fracture, Alexandroupolis, Greece, 2006), Ed. E.E. Gdoutos, Springer, Dordrecht (2006), CD-ROM, Paper N. 131.

424. A. Carpinteri, P. Cornetti, N. Pugno, A. Sapora, D. Taylor: "A coupled stress and energy criterion within finite fracture mechanics", in *Fracture of Nano and Engineering Materials and Structures* (Proceedings of the 16th European Conference of Fracture, Alexandroupolis, Greece, 2006), Ed. E.E. Gdoutos, Springer, Dordrecht (2006), CD-ROM, Paper N. 424.
425. G. Lacidogna, A. Carpinteri: "Monitoring durability performances of concrete and masonry structures by acoustic emission", in *Fracture of Nano and Engineering Materials and Structures* (Proceedings of the 16th European Conference of Fracture, Alexandroupolis, Greece, 2006), Ed. E.E. Gdoutos, Springer, Dordrecht (2006), CD-ROM, Paper N. 218.
426. A. Carpinteri, M. Paggi: "Correlation between Paris' law parameters based on self-similarity and criticality condition", in *Fracture of Nano and Engineering Materials and Structures* (Proceedings of the 16th European Conference of Fracture, Alexandroupolis, Greece, 2006), Ed. E.E. Gdoutos, Springer, Dordrecht (2006), CD-ROM, Paper N. 219.
427. A. Carpinteri, S. Puzzì: "A fractal approach interpretation for the indentation size effect", in *Fracture of Nano and Engineering Materials and Structures* (Proceedings of the 16th European Conference of Fracture, Alexandroupolis, Greece, 2006), Ed. E.E. Gdoutos, Springer, Dordrecht (2006), CD-ROM, Paper N. 382.
428. A. Carpinteri, S. Puzzì: "Fracture mechanics and complexity sciences", in *Fracture of Nano and Engineering Materials and Structures* (Proceedings of the 16th European Conference of Fracture, Alexandroupolis, Greece, 2006), Ed. E.E. Gdoutos, Springer, Dordrecht (2006), CD-ROM, Paper N. 833.
429. A. Carpinteri, S. Invernizzi, G. Lacidogna: "AE structural assessment of a XVIIth Century masonry vault", in *Structural Analysis of Historical Constructions* (Proceedings of the 3rd International Conference, New Delhi, India, 2006), Eds.
P.B. Lourenço et al., MacMillan, New Delhi (2007), Vol. 1, 545-552.
430. A. Carpinteri, G. Lacidogna, G. Niccolini: "Medieval towers as sensitive earthquake receptors", *Structural Analysis of Historical Constructions* (Proceedings of the 3rd International Conference, New Delhi, India, 2006), Eds.
P.B. Lourenço et al., MacMillan, New Delhi (2007), Vol. 1, 593-600.

431. A. Carpinteri, P. Bocca, G. Lacidogna, A. Grazzini, D. Masera: "Damage evaluation by acoustic emission in brickwork structures under variable amplitude loading", *Proceedings of the 7th International Masonry Conference (IMC)*, London, United Kingdom, 2006, CD-ROM, Paper N. 32.
432. A. Carpinteri, M. Paggi, G. Zavarise: "A coupled contact and decohesion analysis of laminated beams", in *Computational Methods in Contact Mechanics* (Proceedings of the IUTAM Symposium, Hannover, Germany, 2006), Eds. P. Wriggers, U. Nackenhorst, Springer-Verlag, Berlin (2007), 147-156.
433. A. Carpinteri, G. Lacidogna, G. Niccolini: "Monitoring medieval towers by the acoustic emission technique during earthquake activity", *Atti del 3° Convegno Nazionale su Crolli e Affidabilità delle Strutture Civili (CRASC)*, Messina, Italy, 2006, 369-380.
434. A. Anzani, L. Binda, A. Carpinteri, G. Lacidogna: "Efficacia di interventi di riparazione su muri in pietra a tre paramenti – Applicazione della tecnica delle emissioni acustiche", *Atti del 3° Convegno Nazionale su Crolli e Affidabilità delle Strutture Civili (CRASC)*, Messina, Italy, 2006, 609-620.
435. M. Paggi, A. Carpinteri, G. Zavarise: "A numerical model for the analysis of decohesion at bi-material interfaces with random properties", *Atti del 16° Convegno Italiano di Meccanica Computazionale (GIMC)*, Bologna, Italy, 2006, CD-ROM.
436. A. Carpinteri, M. Paggi: "Sulla seconda edizione della Mécanique Analytique di Lagrange: Lettura critica e prospettive attuali", *Atti della Giornata di Studio su Joseph Louis Lagrange–Sfogliando la Méchanique Analitique* (Istituto Lombardo– Accademia di Scienze e Lettere, Milano, Italy, 2006), Eds. G. Sacchi Landriani, A. Giorgilli, Edizioni Universitarie di Lettere Economia Diritto, Milano (2008), 109-130.

Year 2007

437. A. Carpinteri, G. Lacidogna, M. Paggi: "Acoustic emission monitoring and numerical modeling of FRP delamination in RC beams with non-rectangular cross-section", *Materials and Structures (RILEM)*, Vol. 40 (2007), 553-566.
438. A. Carpinteri, M. Paggi: "Numerical analysis of fracture mechanisms and failure modes in bi-layered structural components", *Finite Elements in Analysis and Design*, Vol. 43 (2007), 941-953.
439. A. Carpinteri, M. Paggi: "Analytical study of the singularities arising at multi-material interfaces in 2D linear problems", *Engineering Fracture Mechanics*, Vol. 74 (2007), 59-74.

- 440. A. Carpinteri, G. Lacidogna, N. Pugno: "Structural damage diagnosis and life-time assessment by acoustic emission monitoring", *Engineering Fracture Mechanics*, Vol. 74 (2007), 273-289.
- 441. N. Pugno, P. Cornetti, A. Carpinteri: "New unified laws in fatigue: from the Wöhler's to the Paris' regime", *Engineering Fracture Mechanics*, Vol. 74 (2007), 595-601.
- 442. A. Carpinteri, M. Paggi: "Self-similarity and crack growth instability in the correlation between the Paris' constants", *Engineering Fracture Mechanics*, Vol. 74 (2007), 1041-1053.
- 443. A. Carpinteri, B. Chiaia, P. Cornetti, S. Puzzi: "Is the cause of size effect on structural strength fractal or energetic-statistical? – Comments on the paper by Bažant & Yavari", *Engineering Fracture Mechanics*, Vol. 74 (2007), 2892-2896.
- 444. A. Carpinteri, S. Puzzi: "The bridged crack model for the analysis of brittle matrix fibrous composites under repeated bending loading", *Journal of Applied Mechanics*, Vol. 74 (2007), 1239-1246.
- 445. F. Bosia, N. Pugno, G. Lacidogna, A. Carpinteri: "Modelling damage progression by a statistical energy-balance algorithm", *Key Engineering Materials*, Vol. 347 (2007), 435-440.
- 446. A. Carpinteri, G. Lacidogna, G. Niccolini: "Acoustic emission monitoring of medieval towers considered as sensitive earthquake receptors", *Natural Hazards and Earth System Sciences*, Vol. 7 (2007), 1-11.
- 447. A. Carpinteri, G. Lacidogna: "Damage evaluation of three masonry towers by acoustic emission", *Engineering Structures*, Vol. 29 (2007), 1569-1579.
- 448. A. Carpinteri, S. Invernizzi, G. Lacidogna: "Structural assessment of a 17th century masonry vault with AE and numerical techniques", *International Journal of Architectural Heritage*, Vol. 1 (2007), 214-226.
- 449. A. Carpinteri, G. Lacidogna, A. Manuello, "Damage mechanisms interpreted by acoustic emission signal analysis", *Key Engineering Materials*, Vol. 347 (2007), 577-582.
- 450. G. Ferro, A. Carpinteri, G. Ventura: "Minimum reinforcement in concrete structures and material/structural instability", *International Journal of Fracture*, Vol. 146 (2007), 213-231.
- 451. A. Carpinteri, J.R. Carmona, G. Ventura: "Propagation of flexural and shear cracks through reinforced concrete beams by the bridged crack model", *Magazine of Concrete Research*, Vol. 59 (2007), 743-756.

452. A. Carpinteri, J.R. Carmona, G. Ventura: "Modelo analítico para estudiar el fallo por compresión en elementos de hormigón armado. Applicación del bridged crack model", *Anales de Mecánica de la Fractura*, Vol. 24 (2007), 277-282.
453. A. Carpinteri, M. Paggi: "Are the Paris' law parameters dependent on each other?", *Frattura ed Integrità Strutturale*, Vol. 2 (2007), 10-16; in *Atti del 19° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Milano, Italy, 2007, 217-224.
454. A. Carpinteri, P. Cornetti, N. Pugno, A. Sapor, D. Taylor: "Fracture initiation at re-entrant corners: Experiments and finite fracture mechanics predictions", in *New Challenges in Mesomechanics* (Proceedings of the 9th International Meso- Mechanics Conference, Presqu'île de Giens, France, 2007), Eds. G.C. Sih, M. Naït-Abdelaziz, T. Vu-Khanh, ISTE Ltd, London (2007), 207-216.
455. A. Carpinteri, S. Puzzi: "The fractal-statistical nature of size-scale effects on material strength and toughness ", in *Scaling in Solid Mechanics* (Proceedings of a IUTAM Symposium, Cardiff, United Kingdom, 2007), Ed. F.M. Borodich, Springer Science (2009), 145-155.
456. S. Puzzi, A. Carpinteri: "Design optimization of shell structures by evolutionary algorithms with efficient constraint handling", in *Shell and Spatial Structures: Structural Architecture - Toward the Future Looking to the Past* (Proceedings of the IASS Symposium, Venezia, Italy, 2007), CD-ROM.
457. A. Carpinteri, S. Puzzi: "Fractals, statistics and size-scale effects on concrete strength", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 6th International FraMCoS Conference, Catania, Italy, 2007), Eds. A. Carpinteri, P. Gambarova, G. Ferro, G. Plizzari, Taylor & Francis, London (2007), Vol. 1, 31- 37.
458. N. Pugno, G. Lacidogna, A. Carpinteri, F. Bosia: "Modelling the energy balance of acoustic emission", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 6th International FraMCoS Conference, Catania, Italy, 2007), Eds. A. Carpinteri, P. Gambarova, G. Ferro, G. Plizzari, Taylor & Francis, London (2007), Vol. 1, 621-626.
459. A. Carpinteri, M. Corrado, M. Paggi, G. Mancini: "Cohesive versus overlapping crack model for a size effect analysis of RC elements in bending", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 6th International FraMCoS Conference, Catania, Italy, 2007), Eds. A. Carpinteri, P. Gambarova, G. Ferro, G. Plizzari, Taylor & Francis, London (2007), Vol. 2, 655-663.
460. A. Carpinteri, G. Ventura, J.R. Carmona: "Flexural to shear and crushing failure transitions in RC beams by the bridged crack model", in *Fracture Mechanics of*

Concrete Structures (Proceedings of the 6th International FraMCoS Conference, Catania, Italy, 2007), Eds. A. Carpinteri, P. Gambarova, G. Ferro, G. Plizzari, Taylor & Francis, London (2007), Vol. 2, 677-684.

- 461. A. Carpinteri, P. Cornetti, N. Pugno: "Debonding of FRP strengthened beams: Stress assessment versus fracture mechanics approach", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 6th International FraMCoS Conference, Catania, Italy, 2007), Eds. A. Carpinteri, P. Gambarova, G. Ferro, G. Plizzari, Taylor & Francis, London (2007), Vol. 2, 1053-1060.
- 462. A. Carpinteri, G. Lacidogna, A. Manuello: "An experimental study on retrofitted fiber-reinforced concrete beams using acoustic emission", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 6th International FraMCoS Conference, Catania, Italy, 2007), Eds. A. Carpinteri, P. Gambarova, G. Ferro, G. Plizzari, Taylor & Francis, London (2007), Vol. 2, 1061-1068.
- 463. A. Carpinteri, G. Lacidogna, M. Paggi: "On the competition between delamination and shear failure in retrofitted concrete beams and related scale effects", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 6th International FraMCoS Conference, Catania, Italy, 2007), Eds. A. Carpinteri, P. Gambarova, G. Ferro, G. Plizzari, Taylor & Francis, London (2007), Vol. 2, 1069-1076.
- 464. A. Anzani, L. Binda, A. Carpinteri, G. Lacidogna, A. Manuello: "Repair of damaged multiple leaf masonry: Assessment by the acoustic emission technique", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 6th International FraMCoS Conference, Catania, Italy, 2007), Eds. A. Carpinteri, P. Gambarova, G. Ferro, G. Plizzari, Taylor & Francis, London (2007), Vol. 3, 1613- 1621.
- 465. A. Carpinteri, S. Invernizzi, G. Lacidogna: "Numerical simulation of brick-masonry subjected to the double flat-jack test", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 6th International FraMCoS Conference, Catania, Italy, 2007), Eds. A. Carpinteri, P. Gambarova, G. Ferro, G. Plizzari, Taylor & Francis, London (2007), Vol. 3, 1623-1630.
- 466. A. Carpinteri, N. Pugno: "Universality in nonlinear structural dynamics", in *Universality of Nonclassical Nonlinearity – Applications to Non-Destructive Evaluations and Ultrasonics*, Ed. P.P. Delsanto, Springer, New York (2007), 91- 99.
- 467. A. Carpinteri; G. Lacidogna: "Structural monitoring and life-time assessment of medieval towers", in *Earthquakes and Acoustic Emission*, Ed. A. Carpinteri, G. Lacidogna, Taylor & Francis, London (2007), 191-199.

468. M. Paggi, A. Carpinteri: "Fractal and multifractal approaches for the analysis of crack-size dependent scaling laws in fatigue", *Atti del 18° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Brescia, Italy, 2007, CD-ROM, Paper N. SO 13.2.
469. A. Carpinteri, N. Pugno, A. Saporita: "Fractals to model hierarchical materials and structures", *Atti del 18° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Brescia, Italy, 2007, CD-ROM, Paper N. SO 17.1.
470. G. Lacidogna, P. Cornetti, A. Manuello, A. Carpinteri: "Failure evaluation of externally bonded FRP reinforced beams using acoustic emission", *Atti del 18° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Brescia, Italy, 2007, CD-ROM, Paper N. ST 4.1.
471. P. Cornetti, S. Puzzi, A. Carpinteri: "Failure mechanisms in beams strengthened with adhesive strips", *Atti del 18° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Brescia, Italy, 2007, CD-ROM, Paper N. ST 4.3.
472. S. Puzzi, A. Carpinteri: "Optimization of truss-structures using evolutionary algorithms with a novel penalty formulation", *Atti del 18° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Brescia, Italy, 2007, CD-ROM, Paper N. ST 7.3.
473. G. Lacidogna, G. Niccolini, A. Carpinteri: "Spatial characterization of damage through the Acoustic Emission technique", *Atti del 18° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Brescia, Italy, 2007, CD-ROM, Paper N. ST 10.1.
474. A. Carpinteri, S. Invernizzi, G. Lacidogna: "Numerical simulation of in situ nondestructive tests on historical masonry", *Atti del 18° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Brescia, Italy, 2007, CD-ROM, Paper N. ST 14.1.

Year 2008

475. S. Puzzi, A. Carpinteri: "A double-multiplicative dynamic penalty approach for constrained evolutionary optimization", *Structural and Multidisciplinary Optimization*, Vol. 35 (2008), 431-455.
476. A. Carpinteri, M. Paggi: "Size-scale effects on strength, friction and fracture energy of faults: A unified interpretation according to fractal geometry", *Rock Mechanics and Rock Engineering*, Vol. 41 (2008), 735-746.
477. M. Paggi, A. Carpinteri: "On the stress singularities at multimaterial interfaces and related analogies with fluid dynamics and diffusion", *Applied Mechanics Reviews (ASME)*, Vol. 61 (2008), 20801/1-20801/22.

478. A. Carpinteri, M. Paggi, G. Zavarise: "The effect of contact on the decohesion of laminated beams with multiple microcracks", *International Journal of Solids and Structures*, Vol. 45 (2008), 129-143.
479. A. Carpinteri, M. Paggi: "Thermo-elastic mismatch in nonhomogeneous beams", *Journal of Engineering Mathematics*, Vol. 61 (2008), 371-384.
480. M. Ciavarella, M. Paggi, A. Carpinteri: "One, no one, and one hundred thousand crack propagation laws: A generalized Barenblatt and Botvina dimensional analysis approach to fatigue crack growth", *Journal of the Mechanics and Physics of Solids*, Vol. 56 (2008), 3416-3432.
481. E. Lepore, S. Brianza, F. Antonioli, M. Buono, A. Carpinteri, N. Pugno: "Preliminary in vivo experiments on adhesion of geckos", *Journal of Nanomaterials* (2008), 1-5.
482. A. Carpinteri, P. Cornetti, N. Pugno, A. Sapora, D. Taylor: "A finite fracture mechanics approach to structures with sharp V-notches", *Engineering Fracture Mechanics*, Vol. 75 (2008), 1736-1752.
483. N. Pugno, F. Bosia, A. Carpinteri: "Multiscale stochastic simulations as in-silicon tensile testing of nanotube-based space elevator megacables", *Small*, Vol. 4 (2008), 1044-1052.
484. N. Pugno, A. Carpinteri, M. Ippolito, A. Mattoni, L. Colombo: "Atomistic fracture: QFM vs. MD", *Engineering Fracture Mechanics*, Vol. 75 (2008), 1794- 1803.
485. N. Pugno, A. Carpinteri: "On linear elastic fragmentation mechanics under hydrostatic compression", *International Journal of Fracture*, Vol. 149 (2008), 113-117.
486. A. Carpinteri, S. Puzzi: "Self-similarity in concrete fracture: Size-scale effects and transition between different collapse mechanisms", *International Journal of Fracture*, Vol. 154 (2008), 167-175.
487. N. Pugno, A. Carpinteri: "Design of micro/nano-scale bio-inspired hierarchical materials", *Philosophical Magazine Letters*, Vol. 88 (2008), 397-405.
488. C. Portesi, E. Monticone, S. Borini, G.B. Picotto, N. Pugno, A. Carpinteri: "Fabrication of superconducting MgB₂ nanostructures", *Journal of Physics: Condensed Matter*, Vol. 20 (2008), 474210/1-474210/8.
489. A. Carpinteri, N. Pugno: "Super-bridges suspended over carbon nanotube cables", *Journal of Physics: Condensed Matter*, Vol. 20 (2008), 474213/1-474213/8.

490. N. Pugno, P. Cornetti, A. Carpinteri: "On the impossibility of separating nanotubes in a bundle by a longitudinal tension", *Journal of Adhesion*, Vol. 84 (2008), 439-444.
491. N. Pugno, F. Bosia, A.S. Gliozzi, P.P. Delsanto, A. Carpinteri: "Phenomenological approach to mechanical damage growth analysis", *Physical Review E*, Vol. 78 (2008), 46103/1-46103/5.
492. A. Carpinteri, N. Pugno: "Mechanics of hierarchical materials", *International Journal of Fracture*, Vol. 150 (2008), 221-226; in *Fracture Mechanics in Design of Fracture Resistant Materials and Structures* (Proceedings of an Interquadrennial ICF Conference, Moscow, Russia, 2007), CD-ROM.
493. A. Kashtanov, N. Pugno, Y. Petrov, A. Carpinteri: "Dynamic fracture as a process of nonlinear damage wave propagation", *International Journal of Fracture*, Vol. 150 (2008), 227-240; in *Fracture Mechanics in Design of Fracture Resistant Materials and Structures* (Proceedings of an Interquadrennial ICF Conference, Moscow, Russia, 2007), CD-ROM.
494. A. Carpinteri, N. Pugno: "Bio-inspired hierarchical nanomaterials for space applications", *Journal of the British Interplanetary Society*, Vol. 61 (2008), 290- 294; in *Mission to the Outer Solar System and Beyond* (Proceedings of the 5th International Academie d'Astronautique Symposium on Realistic Near-Term Advanced Scientific Space Missions, Aosta, Italy, 2007), Ed. G. Genta, 73-78.
495. F. Bosia, N. Pugno, G. Lacidogna, A. Carpinteri: "Mesoscopic modeling of acoustic emission through an energetic approach", *International Journal of Solids and Structures*, Vol. 45 (2008), 5856-5866.
496. A. Carpinteri, G. Lacidogna, G. Niccolini, S. Puzzi: "Critical defect size distributions in concrete structures detected by the acoustic emission technique", *Meccanica*, Vol. 43 (2008), 349-363.
497. A. Anzani, L. Binda, A. Carpinteri, G. Lacidogna, A. Manuello: "Evaluation of the repair on multiple leaf stone masonry by acoustic emission", *Materials and Structures (RILEM)*, Vol. 41 (2008), 1169-1189.
498. A. Carpinteri, G. Lacidogna, S. Puzzi: "Prediction of cracking evolution in full scale structures by the *b*-value analysis and Yule statistics", *Physical Mesomechanics*, Vol. 11 (2008), 260-271.
499. G. Ferro, A. Carpinteri: "Effect of specimen size on the dissipated energy density in compression", *Journal of Applied Mechanics*, Vol. 75 (2008), 41003/1-41003/8.

500. M. Corrado, A. Carpinteri, M. Paggi, G. Mancini: "Improvement in the plastic rotation evaluation by means of fracture mechanics concepts", in *Tailor Made Concrete Structures: New Solutions for our Society* (Proceedings of an International FIB Symposium, Amsterdam, The Netherlands, 2008), Eds. J.C. Walraven, D. Stoelhorst, CRC Press, Boca Raton (2008), 541-546.
501. A. Carpinteri, G. Lacidogna, A. Manuello, L. Binda: "Monitoring the structures of the ancient temple of Athena incorporated into the cathedral of Syracuse", *Proceedings of the 14th International Brick and Block Masonry Conference* (2008), Sydney, Australia, CD-ROM.
502. A. Carpinteri, S. Invernizzi, G. Lacidogna: "Cracking simulation of brick-masonry elements subjected to the double flat-jack test", in *Structural Analysis of Historic Construction* (Proceedings of the 6th International Conference, Bath, UK, 2008), Eds. D. D'Ayala, E. Fodde, CRC Press, Boca Raton (2008), Vol. 1, 367-374.
503. A. Carpinteri, S. Invernizzi, G. Lacidogna, A. Manuello: "Numerical simulation and monitoring of the Cathedral of Syracuse in Sicily", in *Structural Analysis of Historic Construction* (Proceedings of the 6th International Conference, Bath, UK, 2008), Eds. D. D'Ayala, E. Fodde, CRC Press, Boca Raton (2008), Vol. 1, 375- 382.
504. A. Anzani, L. Binda, A. Carpinteri, S. Invernizzi, G. Lacidogna: "Monitoring structural integrity of historic towers: A mixed approach for their damage evaluation", in *Structural Faults+Repair* (Proceedings of the 10th International Conference, Edinburgh, Scotland, 2008), CD-ROM.
505. P. Bocca, A. Carpinteri, A. Grazzini, G. Lacidogna, A. Manuello, D. Masera: "Reinforced masonry with FRP and structural mortar durability evaluation by AE technique", in *FRP Composites in Civil Engineering* (Proceedings of the 4th International Conference, Zürich, Switzerland, 2008), Ed. M. Motavalli, EMPA, Duebendorf (2008), CD-ROM Paper N. 9a6.
506. A. Carpinteri, P. Bocca, A. Grazzini, G. Lacidogna, A. Manuello, D. Masera: "Cyclic damage analysis by acoustic emission in reinforced masonry walls", in *On Site Assessment of Concrete, Masonry and Timber Structures* (Proceedings of the 1st International RILEM Symposium, Varenna, Italy, 2008), Eds. L. Binda, M. di Prisco, R. Felicetti, RILEM Publications, Bagneux (2008), Vol. 1, 443-452.
507. A. Carpinteri, G. Lacidogna, A. Manuello, L. Binda: "The ancient Athena temple of Syracuse (Sicily): An investigation on structural stability", in *On Site Assessment of Concrete, Masonry and Timber Structures* (Proceedings of the 1st International RILEM Symposium, Varenna, Italy, 2008), Eds. L. Binda, M. di Prisco, R. Felicetti, RILEM Publications, Bagneux (2008), Vol. 2, 727-736.

508. A. Carpinteri, L. De Lorenzis, M. Paggi, G. Zavarise: "Linear elastic fracture mechanics approach to edge debonding in plated beams", *Proceedings of an International Conference on Challenges for Civil Construction (CCC)*, Porto, Portugal, 2008, CD-ROM.
509. A. Carpinteri, M. Paggi: "Modelling strain localization by cohesive (overlapping) zones in tension (compression): Brittleness size effects and scaling in material properties", in *Mechanics Down Under* (Proceedings of the 22nd International Congress of Theoretical and Applied Mechanics, Adelaide, Australia, 2008), Eds. J.P. Denier, M.D. Finn, Springer, Dordrecht (2013), 15-33.
510. A. Carpinteri, M. Paggi: "New correlations for the cyclic properties of engineering materials", in *Multilevel Approach to Fracture of Materials, Components and Structures* (Proceedings of the 17th European Conference of Fracture, Brno, Czech Republic, 2008), CD-ROM.
511. P. Cornetti, D. Taylor, A. Carpinteri: "Strength reduction produced by shallow notches: An asymptotic matching approach", in *Multilevel Approach to Fracture of Materials, Components and Structures* (Proceedings of the 17th European Conference of Fracture, Brno, Czech Republic, 2008), CD-ROM.
512. A. Carpinteri, P. Cornetti, A. Sapora: "Fractional calculus in continuum mechanics: Local vs. non-local approach", *Proceedings of the 3rd International Conference on Fractional Differentiation and its Applications* (2008), Ankara, Turkey, CD-ROM.
513. N. Pugno, A. Carpinteri: "Nanomechanics of hierarchical biomaterials", in *The Nanomechanics in Italy*, Ed. N. Pugno, Research Signpost, Kerala (2008), 11-21.
514. A. Carpinteri, G. Lacidogna: "Introduction", in *Acoustic Emission and Critical Phenomena: From Structural Mechanics to Geophysics*, Eds. A. Carpinteri, G. Lacidogna, CRC Press, Boca Raton (2008), 1-10.
515. A. Carpinteri, G. Lacidogna, A. Manuello: "Localization accuracy of microcracks in damaged concrete structures", in *Acoustic Emission and Critical Phenomena: From Structural Mechanics to Geophysics*, Eds. A. Carpinteri, G. Lacidogna, CRC Press, Boca Raton (2008), 103-124.
516. A. Carpinteri, G. Lacidogna, G. Niccolini: "Multidimensional approaches to the study of Italian seismicity", in *Acoustic Emission and Critical Phenomena: From Structural Mechanics to Geophysics*, Eds. A. Carpinteri, G. Lacidogna, CRC Press, Boca Raton (2008), 245-270.

Year 2009

- 517. A. Carpinteri, M. Paggi: "A fractal interpretation of size-scale effects on strength, friction and fracture energy of faults", *Chaos, Solitons & Fractals*, Vol. 39 (2009), 540-546.
- 518. A. Carpinteri, N. Pugno, S. Puzzi: "Strength vs toughness optimization of microstructured composites", *Chaos, Solitons & Fractals*, Vol. 39 (2009), 1210- 1223.
- 519. M. Paggi, A. Carpinteri: "Fractal and multifractal approaches for the analysis of crack-size dependent scaling laws in fatigue", *Chaos, Solitons & Fractals*, Vol. 40 (2009), 1136-1145.
- 520. A. Carpinteri, N. Pugno, A. Sapora: "Asymptotic analysis of a von Koch beam", *Chaos, Solitons & Fractals*, Vol. 41 (2009), 795-802.
- 521. A. Carpinteri, G. Lacidogna, S. Puzzi: "From criticality to final collapse: Evolution of the b -value from 1.5 to 1.0", *Chaos, Solitons & Fractals*, Vol. 41 (2009), 843-853.
- 522. N. Pugno, A. Carpinteri, P.P. Delsanto: "Predominant natural red-shift of quasi conservative nonlinear systems", *Chaos, Solitons & Fractals*, Vol. 41 (2009), 881- 885.
- 523. P.P. Delsanto, A. S. Gliozzi, C.L.E. Bruno, N. Pugno, A. Carpinteri: "Scaling laws and fractality in the framework of a phenomenological approach", *Chaos, Solitons & Fractals*, Vol. 41 (2009), 2782-2786.
- 524. A. Carpinteri, G. Lacidogna, G. Niccolini: "Fractal analysis of damage detected in concrete structural elements under loading", *Chaos, Solitons & Fractals*, Vol. 42 (2009), 2047-2056.
- 525. A. Carpinteri, M. Paggi: "A top-down approach for the prediction of hardness and toughness of hierarchical materials", *Chaos, Solitons & Fractals*, Vol. 42 (2009), 2546-2552.
- 526. A. Carpinteri, S. Puzzi: "The fractal-statistical approach to the size-scale effects on material strength and toughness", *Probabilistic Engineering Mechanics*, Vol. 24 (2009), 75-83.
- 527. N. Pugno, F. Bosia, A. Capinteri: "Size effects on the strength of nanotube bundles", *Measurement Science and Technology*, Vol. 20 (2009), 84028/1-84028/5.

528. A. Carpinteri, N. Pugno: "Extension of the de Saint Venant and Kirchhoff theories to functionally graded materials", *Strength, Fracture and Complexity*, Vol. 5 (2009), 53-62.
529. F. Cardone, A. Carpinteri, G. Lacidogna: "Piezonuclear neutrons from fracturing of inert solids", *Physics Letters A*, Vol. 373 (2009), 4158-4163.
530. A. Carpinteri, F. Cardone, G. Lacidogna: "Piezonuclear neutrons from brittle fracture: Early results of mechanical compression tests", *Strain*, Vol. 45 (2009), 332-339; *Atti dell'Accademia delle Scienze di Torino*, Torino, Italy, Vol. 33 (2009), 27-42.
531. A. Carpinteri, S. Invernizzi, G. Lacidogna: "Historical brick-masonry subjected to double flat-jack test: Acoustic emissions and scale effects on cracking density", *Construction and Building Materials*, Vol. 23 (2009), 2813-2820.
532. G. Niccolini, G. Durin, A. Carpinteri, G. Lacidogna, A. Manuello: "Crackling noise and universality in fracture systems", *Journal of Statistical Mechanics: Theory and Experiments* (on-line), 2009, P1023/1-P1023/11.
533. G. Niccolini, F. Bosia, A. Carpinteri, G. Lacidogna, A. Manuello, N. Pugno: "Self-similarity of waiting times in fracture systems", *Physical Review E*, Vol. 80 (2009), 26101/1-26101/6.
534. A. Carpinteri, G. Lacidogna, G. Niccolini, S. Puzzi: "Morphological fractal dimension versus power-law exponent in the scaling of damaged media", *International Journal of Damage Mechanics*, Vol. 18 (2009), 259-282.
535. A. Carpinteri, G. Lacidogna, A. Manuello, S. Invernizzi, L. Binda: "Stability of the vertical bearing structures of the Syracuse Cathedral: Experimental and numerical evaluation", *Materials and Structures (RILEM)*, Vol. 42 (2009), 877-888.
536. A. Carpinteri, P. Cornetti, G. Lacidogna, M. Paggi: "Towards a unified approach for the analysis of failure modes in FRP-retrofitted concrete beams", *Advances in Structural Engineering*, Vol. 12 (2009), 715-729.
537. A. Carpinteri, S. Invernizzi, G. Lacidogna: "Closure to: Structural monitoring and integrity assessment of medieval towers, by Alberto Carpinteri and Giuseppe Lacidogna", *Journal of Structural Engineering (ASCE)*, Vol. 135 (2009), 207-208.
538. A. Carpinteri, M. Corrado, M. Paggi, G. Mancini: "New model for the analysis of size-scale effects on the ductility of reinforced concrete elements in bending", *Journal of Engineering Mechanics (ASCE)*, Vol. 135 (2009), 221-229.

539. A. Carpinteri, P. Cornetti, A. Sapora, M. Di Paola, M. Zingales: "Fractional calculus in solid mechanics: Local versus non-local approach", *Physica Scripta*, Vol. T136 (2009), 14003/1-14003/7.
540. A. Carpinteri, P. Cornetti, A. Sapora: "Static-kinematic fractional operators for fractal and non-local solids", *Zeitschrift für Angewandte Mathematik und Mechanik*, Vol. 89 (2009), 207-217.
541. A. Carpinteri, P. Cornetti, N. Pugno, A. Sapora: "Strength of hierarchical materials", *Microsystem Technologies*, Vol. 15 (2009), 27-31.
542. A. Carpinteri, M. Paggi: "A unified interpretation of the power laws in fatigue and the analytical correlations between cyclic properties of engineering materials", *International Journal of Fatigue*, Vol. 31 (2009), 1524-1531.
543. A. Carpinteri, M. Corrado, G. Mancini, M. Paggi: "A numerical approach to modelling size effects on the flexural ductility of RC beams", *Materials and Structures (RILEM)*, Vol. 42 (2009), 1353-1367.
544. A. Carpinteri, M. Corrado, G. Mancini, M. Paggi: "The overlapping crack model for uniaxial and eccentric concrete compression tests", *Magazine of Concrete Research*, Vol. 61 (2009), 745-757.
545. A. Carpinteri, M. Corrado: "An extended (fractal) overlapping crack model to describe crushing size-scale effects in compression", *Journal of Engineering Failure Analysis*, Vol. 16 (2009), 2530-2540.
546. A. Carpinteri, M. Corrado, G. Mancini, M. Paggi: "Size-scale effects on plastic rotational capacity of reinforced concrete beams", *Structural Journal (ACI)*, Vol. 106 (2009), 887-896.
547. A. Carpinteri, P. Cornetti, N. Pugno: "Edge debonding in FRP strengthened beams: Stress versus energy failure criteria", *Engineering Structures*, Vol. 31 (2009), 2436-2447.
548. A. Carpinteri, P. Cornetti, N. Pugno, A. Sapora, D. Taylor: "Generalized fracture toughness for specimens with re-entrant corners: Experiments vs. theoretical predictions", *Structural Engineering and Mechanics*, Vol. 32 (2009), 609-620.
549. A. Carpinteri, M. Paggi: "Asymptotic analysis in linear elasticity: From the pioneering studies by Wieghardt and Irwin until today", *Engineering Fracture Mechanics*, Vol. 76 (2009), 1771-1784.
550. A. Carpinteri, M. Paggi, G. Zavarise: "Cusp-catastrophe interpretation of the stick-slip behaviour of rough surfaces", *Computer Modeling in Engineering & Sciences*, Vol. 1521 (2009), 1-23.

551. A. Manuello, A. Carpinteri, G. Lacidogna: "L'emissione acustica applicata al monitoraggio delle strutture portanti della cattedrale di Siracusa", *Rivista Italiana di Acustica*, Vol. 33 (2009), 23-29.
552. A. Carpinteri, M. Corrado, G. Mancini, M. Paggi: "Il modello della fessura coesiva in trazione e compressione per la valutazione della duttilità degli elementi strutturali in calcestruzzo armato", *Frattura ed Integrità Strutturale*, Vol. 7 (2009), 17-28; *Atti del 17° Congresso dei Tecnici della Industrializzazione Edilizia (CTE)*, Roma, Italy, 2008, Vol. 1, 89-98.
553. A. Carpinteri, S. Puzzi: "Complexity: A new paradigm for fracture mechanics", *Frattura ed Integrità Strutturale*, Vol.10 (2009), 3-11; *Atti del 19° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Milano, Italy, 2007, XI-XVIII.
554. A. Carpinteri, G. Lacidogna, A. Manuello, "The b -value analysis for the stability investigation of the ancient Athena Temple in Syracuse", *Strain*, Vol. 47 (2009), 243-253.
555. A. Carpinteri, P. Cornetti, N. Pugno, A. Sapora: "Is the edge crack the most dangerous V-notch?", *Proceedings of the 12th International Conference on Fracture (ICF)*, Ottawa, Canada, 2009, CD-ROM, Paper N. T02.022.
556. M. Corrado, M. Paggi, A. Carpinteri: "Size-scale effects on the ductility of reinforced concrete structural elements", *Proceedings of the 12th International Conference on Fracture (ICF)*, Ottawa, Canada, 2009, CD-ROM, Paper N. T06.008.
557. M. Ciavarella, M. Paggi, A. Carpinteri: "A generalized dimensional analysis approach to fatigue crack growth", *Proceedings of the 12th International Conference on Fracture (ICF)*, Ottawa, Canada, 2009, CD-ROM, Paper N. T12.017.
558. P. Cornetti, A. Carpinteri: "Pull-push shear test: Analytical solutions with exponential softening", *Proceedings of the 12th International Conference on Fracture (ICF)*, Ottawa, Canada, 2009, CD-ROM, Paper N. T36.002.
559. A. Carpinteri, M. Paggi: "The mitigation of stress-singularities in linear elasticity", *Proceedings of the 12th International Conference on Fracture (ICF)*, Ottawa, Canada, 2009, CD-ROM, Paper N. T40.005.
560. S. Invernizzi, G. Lacidogna, A. Carpinteri: "Numerical simulation of cracking and AE scaling in quasi-brittle materials", *Proceedings of the 12th International Conference on Fracture (ICF)*, Ottawa, Canada, 2009, CD-ROM, Paper N. T40.008.

561. G. Lacidogna, M. Paggi, A. Carpinteri: "Delamination vs shear failure in retrofitted concrete beams and related size-scale effects", *Proceedings of the 12th International Conference on Fracture (ICF)*, Ottawa, Canada, 2009, CD-ROM, Paper N. T40.010.
562. M. Paggi, A. Carpinteri: "Generalized representations of fatigue and size-scale effects on the Paris and Wöhler regimes", *Proceedings of the 12th International Conference on Fracture (ICF)*, Ottawa, Canada, 2009, CD-ROM, Paper N. T40.013.
563. S. Invernizzi, G. Lacidogna, A. Manuello, A. Carpinteri: "Damage assessment of a two-span model masonry arch bridge", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Albuquerque, New Mexico, 2009, CD-ROM, Paper N. 131.
564. A. Schiavi, G. Niccolini, P. Tarizzo, G. Lacidogna, A. Manuello, A. Carpinteri: "Analysis of acoustic emissions at low frequencies in brittle materials under compression", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Albuquerque, New Mexico, 2009, CD-ROM, Paper N. 539.
565. G. Lacidogna, A. Manuello, G. Durin, G. Niccolini, A. Agosto, A. Carpinteri: "Acoustic and electromagnetic emissions as precursor phenomena in failure processes", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Albuquerque, New Mexico, 2009, CD-ROM, Paper N. 540.
566. F. Cardone, G. Lacidogna, A. Carpinteri: "Piezonuclear neutrons emission from brittle compression failure", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Albuquerque, New Mexico, 2009, CD-ROM, Paper N. 541.
567. A. Carpinteri, P. Cornetti, N. Pugno, A. Sapora: "Fractals to model hierarchical biomaterials", in *Mining Smartness from Nature*, Eds. P. Vincenzini, S. Graziani, Trans Tech Publications, Zürich (2009), 54-59.
568. A. Carpinteri, G. Lacidogna, F. Cardone, A. Manuello: "Piezonuclear reactions in inert solids: Neutron emissions from brittle fracture", in *Condensed Matter Nuclear Science* (Proceedings of the 15th International Conference ICCF-15, Roma, Italy, 2009).
569. M. Paggi, A. Carpinteri: "Size-scale effects on the friction coefficient: From weak faults at the planetary scale to superlubricity at the nanoscale", in *Applied and Computational Mechanics* (Proceedings of a Contact Mechanics International Symposium, Hannover, Germany, 2009), Ed. G.E. Stavroulakis, Springer-Verlag, Berlin (2009).

570. M. Corrado, A. Carpinteri: "Dimensional analysis of over-reinforced concrete beams in bending", *Atti del 19° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Ancona, Italy, 2009, CD-ROM, Paper N. 110.
571. A. Sapor, N. Pugno, A. Carpinteri: "Dynamic analysis of fractal antennas", *Atti del 19° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Ancona, Italy, 2009, CD-ROM, Paper N. 123.
572. S. Invernizzi, G. Lacidogna A. Carpinteri: "Scaling of fracture and Acoustic Emission in the compression of concrete-like materials", *Atti del 19° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Ancona, Italy, 2009, CD-ROM, Paper N. 132.
573. M. Paggi, A. Carpinteri, R. Orta: "A unified mathematical formulation for the asymptotic analysis of singular elastic and electromagnetic fields", *Atti del 19° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Ancona, Italy, 2009, CD-ROM, Paper N. 141.
574. G. Lacidogna, M. Corrado, A. Carpinteri: "A global analysis of tall buildings subjected to horizontal loads", *Atti del 19° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Ancona, Italy, 2009, CD-ROM, Paper N. 149.
575. M. Paggi, A. Carpinteri: "A theoretical and numerical approach to the interaction between buckling and resonance instabilities in discrete and continuous mechanical systems", *Atti del 19° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Ancona, Italy, 2009, CD-ROM, Paper N. 202.
576. P. Cornetti, A. Carpinteri, A. Sapor, M. Di Paola, M. Zingales: "An explicit mechanical interpretation of Eringen non-local elasticity by means of fractional calculus", *Atti del 19° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Ancona, Italy, 2009, CD-ROM, Paper N. 339.

Year 2010

577. P. Cornetti, D. Taylor, A. Carpinteri: "An asymptotic matching approach to shallow-notched structural elements", *Engineering Fracture Mechanics*, Vol. 77 (2010), 348-358.
578. P. Bocca, G. Lacidogna, A. Grazzini, A. Manuello, D. Masera, A. Carpinteri: "Creep behaviour in reinforced masonry walls interpreted by acoustic emission", *Key Engineering Materials*, Vols. 417-418 (2010), 237-240.

579. A. Carpinteri, F. Cardone, G. Lacidogna: "Energy emissions from failure phenomena: Mechanical, electromagnetic, nuclear", *Experimental Mechanics*, Vol. 50 (2010), 1235-1243; *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Albuquerque, New Mexico, 2009, CD-ROM, Paper N. 538.
580. A. Anzani, L. Binda, A. Carpinteri, S. Invernizzi, G. Lacidogna: "A multilevel approach for the damage assessment of historic masonry towers", *Journal of Cultural Heritage*, Vol. 11 (2010), 459-470.
581. A. Carpinteri, G. Lacidogna, S. Puzzi: "A global approach for three-dimensional analysis of tall buildings", *The Structural Design of Tall and Special Buildings*, Vol. 19 (2010), 518-536.
582. A. Carpinteri, M. Corrado: "Dimensional analysis approach to the plastic rotation capacity of over-reinforced concrete beams", *Engineering Fracture Mechanics*, Vol. 77 (2010), 1091-1100.
583. A. Carpinteri, M. Corrado: "Nonlinear fracture mechanics investigation on the ductility of reinforced concrete beams", *Revista IBRACON de Estruturas e Materiais*, Vol. 3 (2010), 137-148.
584. A. Carpinteri, M. Corrado, M. Paggi: "An integrated cohesive/overlapping crack model for the analysis of flexural cracking and crushing in RC beams", *International Journal of Fracture*, Vol. 161 (2010), 161-173.
585. A. Carpinteri, M. Paggi: "A unified fractal approach for the interpretation of the anomalous scaling laws in fatigue and comparison with existing models", *International Journal of Fracture*, Vol.161 (2010), 41-52.
586. A. Carpinteri, M. Paggi: "Analysis of snap-back instability due to end-plate debonding in strengthened beams", *Journal of Structural Engineering (ASCE)*, Vol. 136 (2010), 199-208.
587. E. Cadamuro, A. Carpinteri, M. Paggi: "A generalisation of the Hillerborg's model for the analytical evaluation of ductility of RC beams in bending", *Magazine of Concrete Research*, Vol. 62 (2010), 557-567.
588. L. De Lorenzis, M. Paggi, A. Carpinteri, G. Zavarise: "Linear elastic fracture mechanics approach to plate end debonding in rectilinear and curved plated beams", *Advances in Structural Engineering*, Vol.13 (2010), 875-889.
589. M. Paggi, A. Carpinteri, R. Orta: "A mathematical analogy and a unified asymptotic formulation for singular elastic and electromagnetic fields at multimaterial wedges", *Journal of Elasticity*, Vol. 99 (2010), 131-146.

590. M. Corrado, M. Paggi, A. Carpinteri: "Limits to plastic analysis due to size-scale effects on the rotational capacity of reinforced concrete cross sections", *Structural Engineering International*, Vol. 20 (2010), 240-245.
591. A. Carpinteri, A. Saporita: "Diffusion problems in fractal media defined on Cantor sets", *Zeitschrift für Angewandte Mathematik und Mechanik*, Vol. 90 (2010), 203- 210.
592. A. Carpinteri, P. Cornetti, N. Pugno, A. Saporita: "On the most dangerous V-notch", *International Journal of Solids and Structures*, Vol. 47 (2010), 887-893.
593. A. Carpinteri, N. Pugno, A. Saporita: "Free vibration analysis of a von Koch beam", *International Journal of Solids and Structures*, Vol. 47 (2010), 1555-1562.
594. A. Carpinteri, A. De Stefano, S. Invernizzi, G. Ruocci, G. Lacidogna, A. Manuello, R. Ceravolo, L. Degiovanni, A. Quattrone: "Experimental and numerical analysis of a two-span model masonry arch bridge subjected to pier scour", *Advanced Materials Research*, Vols. 133-134 (2010), 301-306.
595. A. Carpinteri, S. Invernizzi, G. Lacidogna, A. Manuello: "Preservation, safeguard and valorization of masonry decorations in the architectural historical heritage of Piedmont (Italy)", *Advanced Materials Research*, Vols. 133-134 (2010), 1015-1020.
596. A. Carpinteri, O. Borla, G. Lacidogna, A. Manuello: "Neutron emissions in brittle rocks during compression tests: Monotonic vs. cyclic loading", *Physical Mesomechanics*, Vol. 13 (2010), 268-274.
597. G. Niccolini, A. Schiavi, P. Tarizzo, A. Carpinteri, G. Lacidogna, A. Manuello: "Scaling in temporal occurrence of quasi-rigid-body vibration pulses due to macrofractures", *Physical Review E*, Vol. 82 (2010), 046115/1-046115/5.
598. A. Carpinteri, P. Cornetti, N. Pugno, A. Saporita: "Anisotropic linear elastic properties of fractal-like composites", *Physical Review E*, Vol. 82 (2010), 056114/1-056114/7.
599. A. Carpinteri, J.R. Carmona, G. Ventura: "Estudio experimental sobre las transiciones entre los modos de fallo en vigas de hormigón armado sin cercos", *Anales de Mecánica de Fractura*, Vol. 27 (2010), 235-240.
600. A. Carpinteri, G. Lacidogna: "Energy emissions from fracture of concrete: Acoustic, electromagnetic, piezonuclear", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 7th International FraMCoS Conference, Jeju, Korea, 2010), Vol. 1, 21-28.

601. G. Lacidogna, A. Manuello, A. Carpinteri, G. Durin, G. Niccolini, A. Schiavi, A. Agosto: "Acoustic and electromagnetic emissions related to stress-induced cracks", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 7th International FraMCoS Conference, Jeju, Korea, 2010), Vol. 1, 79-87.
602. M. Corrado, M. Paggi, A. Carpinteri: "Cohesive-overlapping crack model describing the size-scale effects on the rotational capacity of RC beams in bending", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 7th International FraMCoS Conference, Jeju, Korea, 2010), Vol. 1, 183-190.
603. E. Cadamuro, M. Corrado, A. Carpinteri: "Size-scale effects on minimum flexural reinforcement in RC beams: Application of the cohesive crack model", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 7th International FraMCoS Conference, Jeju, Korea, 2010), Vol. 1, 207-215.
604. S. Invernizzi, G. Lacidogna, A. Manuello, A. Carpinteri: "AE monitoring of a two-span model masonry arch bridge subjected to pier scour", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 7th International FraMCoS Conference, Jeju, Korea, 2010), Vol. 2, 1165-1172.
605. P. Cornetti, A. Carpinteri: "An analytical model for FRP-concrete debonding based on an exponential softening law", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 7th International FraMCoS Conference, Jeju, Korea, 2010), Vol. 2, 1233-1240.
606. A. Carpinteri, P. Cornetti, A. Sapora: "A fractional approach to nonlocal elasticity", *Proceedings of the 4th Workshop on Fractional Differentiation and its Applications (IFAC)*, Badajoz, Spain, 2010, CD-ROM, Paper N. 85.
607. M. Paggi, A. Carpinteri: "Singular harmonic problems at multi-material wedges: Mathematical analogies between elasticity, diffusion and electromagnetism", in *Fracture of Materials and Structures from Micro to Macro Scale* (Proceedings of the 18th European Conference of Fracture, Dresden, Germany, 2010), CD-ROM, Paper N. 64.
608. A. Carpinteri, P. Cornetti, N. Pugno, A. Sapora: "The problem of the critical angle for edge and center V-notched structures", in *Fracture of Materials and Structures from Micro to Macro Scale* (Proceedings of the 18th European Conference of Fracture, Dresden, Germany, 2010), CD-ROM, Paper N. 219.
609. A. Carpinteri, G. Lacidogna, A. Manuello: "Brittle fracture of rocks in compression: Neutron emissions and geomechanics evidences of piezonuclear reactions", in *Fracture of Materials and Structures from Micro to Macro Scale* (Proceedings of 18th European Conference on Fracture, Dresden, Germany, 2010), CD-ROM, Paper N. 336.

610. M. Corrado, M. Paggi, A. Carpinteri: "Limits to plastic analysis design due to size-scale effects on the rotational capacity of plastic hinges", *Proceedings of the 3rd International FIB Congress*, Washington, USA, 2010, CD-ROM, Paper N. 376.
611. A. Carpinteri, M. Corrado, G. Lacidogna: "Structural analysis of tall buildings subjected to lateral loads: Effects of bracings of different height", *Proceedings of the 3rd International FIB Congress*, Washington, USA, 2010, CD-ROM, Paper N. 398.
612. S. Invernizzi, A. Carpinteri, G. Lacidogna, A. Manuello: "Numerical simulation of AE activity in quasi-brittle materials under compression", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Indianapolis, USA, 2010, CD-ROM, Paper N. 432.
613. G. Lacidogna, A. Manuello, A. Carpinteri, G. Niccolini, A. Agosto, G. Durin: "Acoustic and electromagnetic emissions in rocks under compression", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Indianapolis, USA, 2010, CD-ROM, Paper N. 433.
614. A. Manuello, A. Carpinteri, S. Invernizzi, G. Lacidogna, S. Pagliolico, A. Torta: "Mechanical characterization and AE of translucent self-compacting concrete plates in bending", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Indianapolis, USA, 2010, CD-ROM, Paper N. 436.
615. A. Carpinteri, A. Chiodoni, A. Manuello, R. Sandrone: "Energy dispersive x-ray spectroscopy analysis on rock samples subjected to piezonuclear tests", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Indianapolis, USA, 2010, CD-ROM, Paper N. 439.
616. A. Schiavi, G. Niccolini, P. Tarizzo, G. Lacidogna, A. Manuello, A. Carpinteri: "Analysis of energy released by elastic emission in brittle materials under compression", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Indianapolis, USA, 2010, CD-ROM, Paper N. 448.
617. G. Niccolini, G. Durin, G. Lacidogna, A. Manuello, A. Carpinteri: "AE monitoring of the Syracuse Athena Temple: Scale invariance in the timing of ruptures", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Indianapolis, USA, 2010, CD-ROM, Paper N. 449.
618. A. Carpinteri, G. Lacidogna, A. Manuello, O. Borla: "Evidence of piezonuclear reactions: From geological and tectonic transformations to neutron detection and measurements", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Indianapolis, USA, 2010, CD-ROM, Paper N. 458.

619. A. Carpinteri , S. Invernizzi, G. Lacidogna , A. Manuello, G. Niccolini: "The Athena Temple of Syracuse: Structural stability investigation by Acoustic Emission", in *Proceedings of the 20th International Acoustic Emission Symposium (IAES-20)*, Kumamoto, Japan, 2010, 271-276.
620. A. Carpinteri, G. Lacidogna, A. Manuello: "Evidence of piezonuclear fission reactions: Neutron emissions, microchemical analysis, geological transformations", in *Proceedings of the 9th Youth Symposium on Experimental Solid Mechanics (YSESM)*, Trieste, Italy, 2010, 3-8.
621. A. Carpinteri, G. Lacidogna, A. Manuello, O. Borla: "Piezonuclear transmutations in brittle rocks under mechanical loading: Microchemical analysis and geological confirmations", in *Recent Advances in Mechanics - Dedicated to the Late Professor P.S. Theocaris*, Springer, Chennai (2010), 361-382.
622. G. Niccolini, A. Schiavi, P. Tarizzo, A. Carpinteri, G. Lacidogna, A. Manuello: "Emissioni acustiche a bassa frequenza durante le prove di compressione di materiali fragili", *Atti del 37° Convegno Nazionale della Associazione Italiana di Acustica*, Siracusa, Italy, 2010, CD-ROM.
623. G. Niccolini, G. Lacidogna, A. Manuello, A. Carpinteri: "Monitoraggio della Cattedrale di Siracusa mediante l'analisi delle emissioni acustiche", *Atti del 37° Convegno Nazionale della Associazione Italiana di Acustica*, Siracusa, Italy, 2010, CD-ROM.
624. A. Carpinteri, G. Lacidogna: "Diagnosi del danneggiamento di strutture in muratura con la tecnica delle emissioni acustiche", in *Il Consolidamento Strutturale degli Edifici Storici – Diagnostica, Monitoraggio, Materiali per l'Intervento Compatibile*, Quaderni del Progetto Mestieri Reali, L'Artistica Editrice, Savigliano (2010), 95-105.

Year 2011

625. O. Plekhov, M. Paggi, O. Naimark, A. Carpinteri: "A dimensional analysis interpretation to grain size and loading frequency dependencies of the Paris and Wöhler curves", *International Journal of Fatigue*, Vol. 33 (2011), 477-483.
626. A. Carpinteri, M. Paggi: "Singular harmonic problems at a wedge vertex: mathematical analogies between elasticity, diffusion, electromagnetism, and fluid dynamics", *Journal of Mechanics of Materials and Structures*, Vol. 6 (2011), 113- 125.
627. A. Carpinteri, M. Paggi: "Dimensional analysis and fractal modeling of fatigue crack growth", *Journal of ASTM International*, Vol. 8 (2011), ON LINE, Paper N. 13.

628. A. Carpinteri, P. Cornetti, N. Pugno, A. Sapora: "The problem of the critical angle for edge and center V-notched structures", *European Journal of Mechanics A/Solids*, Vol. 30 (2011), 281-285.
629. A. Carpinteri, N. Pugno, A. Sapora: "Dynamic response of damped von Koch antennas", *Journal of Vibration and Control*, Vol. 17 (2011), 733-740.
630. A. Carpinteri, P. Cornetti, A. Sapora: "A fractional calculus approach to nonlocal elasticity", *European Physical Journal*, Vol. 193 (2011), 193-204.
631. A. Carpinteri, P. Cornetti, A. Sapora: "Brittle failures at rounded V-notches: A finite fracture mechanics approach", *International Journal of Fracture*, Vol. 172 (2011), 1-8.
632. P. Cornetti, A. Carpinteri: "Modelling the FRP-concrete delamination by means of an exponential softening law", *Engineering Structures*, Vol. 33 (2011), 1988-2001.
633. A. Carpinteri, M. Corrado: "Upper and lower bounds for structural design of RC members with ductile response", *Engineering Structures*, Vol. 33 (2011), 3432- 3441.
634. M. Corrado, E. Cadamuro, A. Carpinteri: "Dimensional analysis approach to study snap back-to-softening-to-ductile transitions in lightly reinforced quasi-brittle materials", *International Journal of Fracture*, Vol. 172 (2011), 53-63.
635. A. Carpinteri, G. Lacidogna, G. Niccolini: "Damage analysis of reinforced concrete buildings by the acoustic emission technique", *Structural Control and Health Monitoring*, Vol. 18 (2011), 660-673.
636. A. Carpinteri, G. Lacidogna, A. Manuello, O. Borla: "Energy emissions from brittle fracture: Neutron measurements and geological evidences of piezonuclear reactions", *Strength, Fracture and Complexity*, Vol. 7 (2011), 13-31.
637. G. Niccolini, A. Carpinteri, G. Lacidogna, A. Manuello: "Acoustic Emission monitoring of the Syracuse Athena Temple: Scale invariance in the timing of ruptures", *Physical Review Letters*, Vol. 106 (2011), 108503/1-108503/4.
638. A. Schiavi, G. Niccolini, P. Tarizzo, A. Carpinteri, G. Lacidogna A. Manuello: "Acoustic emissions at high and low frequencies during compression tests on brittle materials", *Strain*, Vol. 47, Suppl. 2 (2011), 105-110.
639. G. Lacidogna, A. Carpinteri, A. Manuello, G. Durin, A. Schiavi, G. Niccolini, A. Agosto: "Acoustic and electromagnetic emissions as precursor phenomena in failure processes", *Strain*, Vol. 47, Suppl. 2 (2011), 144-152.

640. S. Invernizzi, G. Lacidogna, A. Manuello, A. Carpinteri: "AE monitoring and numerical simulation of a two-span model masonry arch bridge subjected to pier scour", *Strain*, Vol. 47, Suppl. 2 (2011), 158-169.
641. A. Carpinteri, A. Manuello: "Geomechanical and geochemical evidence of piezonuclear fission reactions in the Earth's Crust", *Strain*, Vol. 47, Suppl. 2 (2011), 267-281.
642. A. Carpinteri, A. Chiodoni, A. Manuello, R. Sandrone: "Compositional and microchemical evidence of piezonuclear fission reactions in rock specimens subjected to compression tests", *Strain*, Vol. 47, Suppl. 2 (2011), 282-292.
643. A. Carpinteri, M. Corrado, M. Paggi: "An analytical model based on strain localization for the study of size-scale and slenderness effects in uniaxial compression tests", *Strain*, Vol. 47, Suppl. 2 (2011), 351-362.
644. A. Carpinteri, J. Ruiz Carmona, G. Ventura: "Failure mode transitions in reinforced concrete beams - Part 1: Theoretical model", *Structural Journal (ACI)*, Vol. 108 (2011), 277-285.
645. A. Carpinteri, J. Ruiz Carmona, G. Ventura: "Failure mode transitions in reinforced concrete beams - Part 2: Experimental tests", *Structural Journal (ACI)*, Vol. 108 (2011), 286-293.
646. A. Carpinteri, P. Cornetti, A. Sapora: "A Finite Fracture Mechanics approach to the asymptotic behaviour of U-notched structures", in *Characterization of Crack Tip Stress Field*, Proceedings of the First IJFatigue & FFEMS Joint Workshop, Forni di Sopra (Udine), Italy, 2011, 666-672.
647. A. Sapora, P. Cornetti, A. Carpinteri: "Investigation on brittle fracture in rounded V-notched structures by Finite Fracture Mechanics", in *Mesomechanics 2011* (Proceedings of the 13th International Meso-Mechanics Conference, Vicenza, Italy), Eds. G. C. Sih, P. Lazzarin, F. Berto, 2011, 155-158; *Atti del 21° Convegno Nazionale del Gruppo Italiano Frattura (IGF)*, Cassino, Italy, 2011, 177-180.
648. A. Carpinteri, G. Lacidogna, A. Manuello, O. Borla: "Neutron emission evidences in natural materials under monotonic, cyclic, and vibrational loading", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Uncasville, Connecticut, USA, 2011, CD-ROM, Paper N. 110.
649. G. Lacidogna, A. Carpinteri, A. Manuello; G. Niccolini, A. Agosto, O. Borla: "Acoustic emission and electrical properties of quasi-brittle materials under compression", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Uncasville, Connecticut, USA, 2011, CD-ROM, Paper N. 112.

650. A. Schiavi, G. Niccolini, P. Tarizzo, A. Carpinteri, G. Lacidogna, A. Manuello: "Waveforms and frequency spectra of elastic emissions due to macrofracture in solids", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Uncasville, Connecticut, USA, 2011, CD-ROM, Paper N. 178.
651. A. Carpinteri, G. Lacidogna, A. Manuello, O. Borla: "Le reazioni piezonucleari dovute alla frattura fragile", in *Geofisica e Microgeofisica: Strumenti per l'Approccio e la Risoluzione di Problematiche Non-standard*, Rovereto, Italy, 2010, Editore Osiride (2011), 73-82.
652. A. Carpinteri, G. Lacidogna, A. Manuello, G. Niccolini: "A study on the structural stability of the Asinelli Tower in Bologna", *Proceedings of 5th Conference on Emerging Technologies in NDT (5th ETNDT)*, Ioannina, Greece, 2011, 123-129; *Atti del 20° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Bologna, Italy, 2011, CD-ROM, Paper N. 185.
653. A. Sapora, P. Cornetti, A. Carpinteri: "Wave propagation in nonlocal elastic continua modelled by a fractional calculus approach", *Atti del 20° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Bologna, Italy, 2011, CD-ROM, Paper N. 71.
654. S. Invernizzi, G. Lacidogna, A. Carpinteri: "A particle method strategy for the simulation of AE statistics in disordered materials", *Atti del 20° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Bologna, Italy, 2011, CD-ROM, Paper N. 77.
655. A. Carpinteri, M. Corrado, G. Lacidogna: "Fractality of fracture patterns in compression", *Atti del 20° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Bologna, Italy, 2011, CD-ROM, Paper N.150.
656. P. Cornetti, V. Mantič, A. Carpinteri: "Delamination along an elastic interface: A finite fracture mechanics approach", *Atti del 20° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Bologna, Italy, 2011, CD-ROM, Paper N.154.
657. M. Corrado, P. Cornetti, A. Carpinteri: "Competition and interplay between different failure mechanisms in FRP-strengthened beams", *Atti del 20° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Bologna, Italy, 2011, CD-ROM, Paper N.347.
658. A. Manuello, G. Lacidogna, J. Xu, A. Carpinteri, "Acoustic emission localization in cracking concrete structures", *Atti del 20° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Bologna, Italy, 2011, CD-ROM, Paper N. 365.
659. A. Carpinteri: "Reazioni piezonucleari: Il cammino scientifico tra ricerca e sviluppo", *Il Giornale dell'Ingegnere*, Vol. 59, N. 15-16 (2011), 4.

660. A. Carpinteri: "Ricordo di Franco Levi da parte di un suo allievo indiretto: Uomo, scienziato, comunicatore", in *Ricordo di Franco Levi: Docente, ricercatore, code maker, progettista*, Politecnico di Torino (2011), 8-9.

Year 2012

661. A. Carpinteri, M. Paggi: "Modelling strain localization by cohesive/overlapping zones in tension/compression: Brittleness size effects and scaling in material properties", *Zeitschrift für Angewandte Mathematik und Mechanik*, Vol. 92 (2012), 829-840.
662. B. Gong, M. Paggi, A. Carpinteri: "A cohesive crack model coupled with damage for interface fatigue problems", *International Journal of Fracture*, Vol. 137 (2012), 91-104.
663. M. Paggi, A. Carpinteri, P. Wriggers: "Editorial: Special issue on fracture and contact mechanics for interface problems", *Engineering Fracture Mechanics*, Vol. 80 (2012), 1-2.
664. M. Paggi, A. Carpinteri, P. Wriggers: "Editorial: Special issue on computational methods for interface mechanical problems", *Computational Mechanics*, Vol. 50 (2012), 1-4.
665. A. Carpinteri: "Editorial", *Meccanica*, Vol. 47 (2012), 1.
666. A. Carpinteri, M. Corrado, G. Goso, M. Paggi: "Size-scale effects on interaction diagrams for reinforced concrete columns", *Construction and Building Materials*, Vol. 27 (2012), 271-279.
667. A. Carpinteri, M. Corrado, G. Lacidogna, S. Cammarano: "Lateral load effects on tall shear wall structures of different height", *Structural Engineering and Mechanics*, Vol. 41 (2012), 313-337.
668. A. Carpinteri, B. Gong, M. Corrado: "Hardening cohesive/overlapping zone model for metallic materials: The size-scale independent constitutive law", *Engineering Fracture Mechanics*, Vol. 82 (2012), 29-45.
669. A. Carpinteri, M. Corrado, G. Lacidogna: "Three different approaches for damage domain characterization in disordered materials: Fractal energy density, *b*-value statistics, renormalization group theory", *Mechanics of Materials*, Vol. 53 (2012), 15-28.
670. A. Carpinteri, G. Lacidogna, A. Manuello, O. Borla: "Piezonuclear fission reactions in rocks: Evidences from microchemical analysis, neutron emission, and

geological transformation", *Rock Mechanics and Rock Engineering*, Vol. 45 (2012), 445-459.

- 671. A. Carpinteri, J. Xu, G. Lacidogna, A. Manuello: "Reliable onset time determination and source location of acoustic emissions in concrete structures", *Cement & Concrete Composites*, Vol. 34 (2012), 529-537.
- 672. G. Niccolini, J. Xu, A. Manuello, G. Lacidogna, A. Carpinteri: "Onset time determination of acoustic and electromagnetic emission during rock fracture", *Progress in Electromagnetics Research Letters*, Vol. 35 (2012), 51-62.
- 673. A. Carpinteri, G. Lacidogna, A. Manuello, G. Niccolini, A. Schiavi, A. Agosto: "Mechanical and electromagnetic emissions related to stress-induced cracks", *Experimental Techniques*, Vol. 36 (2012), 53-64.
- 674. A. Carpinteri, G. Lacidogna, O. Borla, A. Manuello, G. Niccolini: "Electromagnetic and neutron emissions from brittle rocks failure: Experimental evidence and geological implications", *Sadhana*, Vol. 37 (2012), 59-78.
- 675. A. Carpinteri, G. Lacidogna, A. Manuello, O. Borla: "Piezonuclear neutrons from earthquakes as a hypothesis for the image formation and the radiocarbon dating of the Turin Shroud", *Scientific Research and Essays*, Vol. 7 (2012), 2603-2612.
- 676. A. Carpinteri, P. Cornetti, A. Saporita: "A Finite Fracture Mechanics approach to the asymptotic behaviour of U-notched structures", *Fatigue & Fracture of Engineering Materials & Structures*, Vol. 35 (2012), 451-457.
- 677. P. Cornetti, V. Mantic, A. Carpinteri: "Finite Fracture Mechanics at elastic interfaces", *International Journal of Solids and Structures*, Vol. 49 (2012), 1022- 1032.
- 678. A. Carpinteri, J.R. Carmona, G. Ventura: " Failure mode transitions in reinforced concrete beams - Part 1: Theoretical model, and Part 2: Experimental tests – Discussion on a paper by A. Windisch", *Structural Journal (ACI)*, Vol. 109 (2012), 267.
- 679. A. Schiavi, G. Niccolini, A. Carpinteri, G. Lacidogna: "Damage assessment in Syracuse limestone specimens by frequency analysis of elastic emissions", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Costa Mesa, California, USA, 2012, CD-ROM, Chapter N. 13, 105-109.
- 680. A. Carpinteri, M. Corrado, G. Lacidogna: "Absorbed vs. released energy in the cracking process of heterogeneous materials under compression", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Costa Mesa, California, USA, 2012, CD-ROM, Chapter N. 35, 303-311.

681. A. Carpinteri, G. Lacidogna, A. Manuello, G. Niccolini, O. Borla: "Time correlation between acoustic, electromagnetic and neutron emissions in rocks under compression", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Costa Mesa, California, USA, 2012, CD-ROM, Chapter N. 50, 387-393.
682. A. Carpinteri, S. Invernizzi, G. Lacidogna, F. Accornero: "Acoustic emission monitoring of frescos degradation in a XVIIth century chapel of the Sacred Mountain of Varallo", *Proceedings of the 8th International Congress on Structural Analysis of Historical Constructions*, Bratislava, Poland, 2012, CD-ROM, Paper N. 315.
683. M. Paggi, E. Lehmann, C. Weber, A. Carpinteri, P. Wriggers: "3D vs. 2D modelling of cracking and plasticity in polycrystalline materials", *Proceedings of the 10th World Congress on Computational Mechanics*, Sao Paulo, Brazil, 2012, CD-ROM, Paper N. 18522.
684. S. Invernizzi, O. Borla, G. Lacidogna, A. Manuello, A. Carpinteri: "Piezonuclear evidences from laboratory tests on steel", in *Fracture Mechanics for Durability, Reliability and Safety* (Proceedings of the 19th European Conference on Fracture, Kazan, Russia, 2012), CD-ROM, Paper N. 383.
685. F. Accornero, S. Invernizzi, G. Lacidogna, A. Carpinteri: "Acoustic emission and damage analysis of decorated surface structural supports", in *Fracture Mechanics for Durability, Reliability and Safety* (Proceedings of the 19th European Conference on Fracture, Kazan, Russia, 2012), CD-ROM, Paper N. 606.
686. G. Niccolini, O. Borla, G. Lacidogna, A. Schiavi, A. Carpinteri: "Failure precursors in rocks and concrete", in *Fracture Mechanics for Durability, Reliability and Safety* (Proceedings of the 19th European Conference on Fracture, Kazan, Russia, 2012), CD-ROM, Paper N. 608.
687. G. Lacidogna, O. Borla, G. Niccolini, A. Carpinteri: "Time correlation between different forms of energy emitted from rocks under compression", in *Fracture Mechanics for Durability, Reliability and Safety* (Proceedings of the 19th European Conference on Fracture, Kazan, Russia, 2012), CD-ROM, Paper N. 609.
688. F. Smeacetto, O. Borla, G. Lacidogna, A. Carpinteri: "X-ray photoelectron spectroscopy on fracture surfaces of carrara marble specimens crushed in compression", in *Fracture Mechanics for Durability, Reliability and Safety* (Proceedings of the 19th European Conference on Fracture, Kazan, Russia, 2012), CD-ROM, Paper N. 610.
689. A. Manuello, R. Sandrone, S. Guastella, O. Borla, G. Lacidogna, A. Carpinteri: "Piezonuclear reactions during mechanical tests of basalt and magnetite", in

Fracture Mechanics for Durability, Reliability and Safety (Proceedings of the 19th European Conference on Fracture, Kazan, Russia, 2012), CD-ROM, Paper N. 611.

- 690. A. Schiavi, G. Lacidogna, G. Niccolini, A. Carpinteri: "Elastic emission or very low frequency acoustic emission in solids under compression", in *Fracture Mechanics for Durability, Reliability and Safety* (Proceedings of the 19th European Conference on Fracture, Kazan, Russia, 2012), CD-ROM, Paper N. 618.
- 691. O. Borla, G. Lacidogna, A. Zanini, A. Carpinteri: "The phenomenon of neutron emission from earthquakes", in *Fracture Mechanics for Durability, Reliability and Safety* (Proceedings of the 19th European Conference on Fracture, Kazan, Russia, 2012), CD-ROM, Paper N. 620.
- 692. A. Carpinteri, O. Borla, G. Lacidogna, A. Manuello: "Piezonuclear reactions produced by brittle fracture: From laboratory to planetary scale", in *Fracture Mechanics for Durability, Reliability and Safety* (Proceedings of the 19th European Conference on Fracture, Kazan, Russia, 2012), CD-ROM, Paper N. 646.

Year 2013

- 693. B. Chiaia, M. Borri-Brunetto, A. Carpinteri: "Mathematical modelling of the mechanics of core drilling in geomaterials", *Machining Science and Technology*, Vol. 17 (2013), 1-25.
- 694. A. Sapora, P. Cornetti, A. Carpinteri: "Wave propagation in nonlocal elastic continua modelled by a fractional calculus approach", *Communications in Nonlinear Science and Numerical Simulation*, Vol. 18 (2013), 63-74.
- 695. A. Sapora, P. Cornetti, A. Carpinteri: "A finite fracture mechanics approach to V- notched elements subjected to mixed-mode loading", *Engineering Fracture Mechanics*, Vol. 97 (2013), 216-226.
- 696. P. Cornetti, A. Sapora, A. Carpinteri: "Mode mixity and size effect in V-notched structures", *International Journal of Solids and Structures*, Vol. 50 (2013), 1562- 1582.
- 697. A. Sapora, P. Cornetti, A. Carpinteri: "Diffusion problems on fractional nonlocal media", *Central European Journal of Physics*, Vol. 11 (2013), 1255-1261.
- 698. I. Iturrioz, G. Lacidogna, A. Carpinteri: "Experimental analysis and truss-like discrete element model simulation of concrete specimens under uniaxial compression", *Engineering Fracture Mechanics*, Vol. 110 (2013), 81-98.
- 699. A. Carpinteri, M. Corrado, G. Lacidogna: "Heterogeneous materials in compression: Correlations between absorbed, released and acoustic emission

- energies", *Engineering Failure Analysis*, Vol. 33 (2013), 236-250.
700. A. Carpinteri, M. Paggi: "A theoretical approach to the interaction between buckling and resonance instabilities", *Journal of Engineering Mathematics*, Vol. 78 (2013), 19-35.
 701. M. Paggi, E. Lehmann, C. Weber, A. Carpinteri: "A numerical investigation of the interplay between cohesive cracking and plasticity in polycrystalline materials", *Computational Materials Science*, Vol. 77 (2013), 81-92.
 702. A. Carpinteri, G. Lacidogna, A. Manuello, O. Borla: "Piezonuclear fission reactions from earthquakes and brittle rocks failure: Evidence of neutron emission and non-radioactive product elements", *Experimental Mechanics*, Vol. 53 (2013), 345-365.
 703. S. Invernizzi, G. Lacidogna, A. Carpinteri: "Particle-based numerical modeling of AE statistics in disordered materials", *Meccanica*, Vol. 48 (2013), 211-220.
 704. S. Invernizzi, G. Lacidogna, A. Carpinteri: "Scaling of fracture and acoustic emission in concrete", *Magazine of Concrete Research*, Vol. 65 (2013), 529-534 .
 705. A. Carpinteri, E. Cadamuro, G. Ventura: "Fiber-reinforced concrete in flexure: A cohesive/overlapping crack model application", *Materials and Structures*, Vol. 48 (2015), 235-247. First Online: 10 October 2013.
 706. A. Carpinteri, M. El-Khatieb, E. Cadamuro: "Failure mode transitions in RC beams: A cohesive/overlapping crack model application", *Meccanica*, Vol. 48 (2013), 2349-2366.
 707. A. Carpinteri, G. Lacidogna, F. Accornero, A. Mpalaskas, T. Matikas, D. Aggelis: "Influence of damage on the acoustic emission parameters", *Cement and Concrete Composites*, Vol. 44 (2013), 9-16.
 708. A. Carpinteri, G. Lacidogna, S. Cammarano: "Structural analysis of high-rise buildings under horizontal loads: A study on the Intesa Sanpaolo tower in Turin", *Engineering Structures*, Vol. 56 (2013), 1362-1371.
 709. A. Carpinteri, G. Lacidogna, S. Invernizzi, F. Accornero: "The Sacred Mountain of Varallo in Italy: Seismic risk assessment by acoustic emission and structural numerical models", *The Scientific World Journal*, 2013, ON LINE, 1-10; *Atti del 21° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Torino, Italy, 2013, CD-ROM.
 710. A. Carpinteri, M. Corrado, G. Ventura: "Failure mode scaling transitions in RC beams in flexure: Tensile, shearing, crushing", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 8th International FraMCoS Conference, Toledo, Spain, 2013), Eds. J.G.M. van Mier, G. Ruiz, C. Andrade, R.C. Yu, X.X. Zhang, Cimne, Barcellona (2013), 17-29.

- 711. M. Paggi, A. Carpinteri: "A shear transfer model for rough joints based on contact and fracture mechanics", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 8th International FraMCoS Conference, Toledo, Spain, 2013), CD-ROM.
- 712. M. Corrado, P. Cornetti, A. Carpinteri: "Competition and interplay between different failure mechanisms in concrete beams strengthened by FRP plates", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 8th International FraMCoS Conference, Toledo, Spain, 2013), CD-ROM.
- 713. G. Lacidogna, F. Accornero, M. Corrado, A. Carpinteri: "Crushing and fracture energies in concrete specimens monitored by acoustic emission", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 8th International FraMCoS Conference, Toledo, Spain, 2013), CD-ROM.
- 714. A. Carpinteri, G. Lacidogna, A. Manuello, G. Niccolini: "Acoustic emission wireless transmission system for structural and infrastructural networks", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 8th International FraMCoS Conference, Toledo, Spain, 2013), CD-ROM.
- 715. P. Cornetti, M. Corrado, L. De Lorenzis, A. Carpinteri: "Edge debonding in FRP- strengthened concrete beams: An analytical approach based on the cohesive crack model", in *Fracture Mechanics of Concrete Structures* (Proceedings of the 8th International FraMCoS Conference, Toledo, Spain, 2013), CD-ROM.
- 716. A. Carpinteri: "Piezonuclear fission reactions produced by fracture and earthquakes: From the chemical evolution of our planet to the so-called cold fusion", *Proceedings of the 13th International Conference on Fracture (ICF)*, Beijing, China, 2013, CD-ROM, Paper N. HL02.
- 717. A. Carpinteri, G. Lacidogna, S. Invernizzi, A. Manuello: "Particle simulation of AE statistics and fracture in concrete TPB test", *Proceedings of the 13th International Conference on Fracture (ICF)*, Beijing, China, 2013, CD-ROM, Paper N. S09.026.
- 718. Jie Xu, Qinghua Han, G. Lacidogna, A. Carpinteri: "Accuracy of acoustic emission localization for masonry structure monitoring", *Proceedings of the 13th International Conference on Fracture (ICF)*, Beijing, China, 2013, CD-ROM, Paper N. S21.003.
- 719. A. Carpinteri, G. Lacidogna, A. Manuello, G. Niccolini. F. Accornero: "Correlation between acoustic emission and seismicity in the sacred mountain of Varallo renaissance complex in Italy", *Proceedings of the 13th International Conference on Fracture (ICF)*, Beijing, China, 2013, CD-ROM, Paper N. S21.010.

720. P. Cornetti, A. Sapora, A. Carpinteri: "Fracture initiation and size effect in V-notched structures under mixed mode loading", *Proceedings of the 13th International Conference on Fracture (ICF)*, Beijing, China, 2013, CD-ROM, Paper N. S32.005.
721. A. Carpinteri, G. Lacidogna, S. Invernizzi, A. Manuello: "AE monitoring and structural modelling of the Asinelli Tower in Bologna", *Proceedings of the 13th International Conference on Fracture (ICF)*, Beijing, China, 2013, CD-ROM, Paper N. S51.019.
722. A. Carpinteri, D.M.R. Taplin : "Cottrell legacy: The metamorphosis of ICF into the World Academy of Structural Integrity 2011-2021", *Proceedings of the 13th International Conference on Fracture (ICF)*, Beijing, China, 2013, CD-ROM, Paper N. M01-008.
723. A. Sapora, P. Cornetti, A. Carpinteri: "Wave propagation in fractional nonlocal continua", *Proceedings of the 6th Workshop on Fractional Differentiation and its Applications (IFAC)*, Grenoble, France, 2013, Vol. 6, 599-604.
724. A. Carpinteri, O. Borla, A. Goi, A. Manuello, D. Veneziano: "Mechanical conjectures explaining cold nuclear fusion". *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Lombard, Illinois, USA, 2013, Vol. 3, 353-367.
725. A. Carpinteri, G. Lacidogna, O. Borla: "Is the shroud of Turin in relation to the old Jerusalem historical earthquake?", *Atti del 21° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Torino, Italy, 2013, CD-ROM.
726. A. Sapora, P. Cornetti, A. Carpinteri: "Brittle fracture in V-notched elements under mixed-mode loading conditions", *Atti del 21° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Torino, Italy, 2013, CD-ROM.
727. P. Cornetti, M. Corrado, A. Carpinteri, L. De Lorenzis: "A cohesive crack model approach to the edge debonding mechanism in plated beams", *Atti del 21° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Torino, Italy, 2013, CD-ROM.
728. M. Corrado, D. Villani, G. Ventura, A. Carpinteri: "Experimental evidences and numerical simulations of the scale-slenderness-steel amount failure mode transitions in RC beams", *Atti del 21° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Torino, Italy, 2013, CD-ROM.
729. G. Piana, A. Manuello, R. Malvano, A. Carpinteri: "Vibration and stability of axially loaded structures: Experimental and numerical studies", *Atti del 21° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Torino, Italy, 2013, CD-ROM.

730. S. Invernizzi, G. Lacidogna, G. Niccolini, A. Manuello, A. Carpinteri: "AE monitoring and structural modelization of the Asinelli Tower in Bologna", *Atti del 21° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Torino, Italy, 2013, CD-ROM.
731. D. Veneziano, O. Borla, A. Goi, A. Manuello, A. Carpinteri: "Mechanical conjectures based on hydrogen embrittlement explaining cold nuclear fusion", *Atti del 21° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Torino, Italy, 2013, CD-ROM.
732. O. Borla, G. Lacidogna, E. Di Battista, G. Niccolini, A. Carpinteri: "Multiparameter approach for seismic risk evaluation through environmental monitoring", *Atti del 21° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Torino, Italy, 2013, CD-ROM.
733. E. Di Battista, G. Lacidogna, S. Invernizzi, F. Accornero, O. Borla, A. Carpinteri: "Acoustic emission and fracture energy dissipation in notched concrete beams subjected to three-point bending tests", *Atti del 21° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Torino, Italy, 2013, CD-ROM.
734. S. Cammarano, G. Lacidogna, A. Carpinteri: "L'effetto della deformazione di ingobbamento sul comportamento strutturale di edifici irrigiditi da mensole a sezione sottile aperta", *Atti del 21° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Torino, Italy, 2013, CD-ROM.
735. A. Manuello, G. Lacidogna, G. Niccolini, A. Carpinteri: "Acoustic emission wireless monitoring of structures and infrastructures", *Atti del 21° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Torino, Italy, 2013, CD-ROM.
736. G. Niccolini, O. Borla, F. Accornero, G. Lacidogna, A. Carpinteri: "Mechanical damage of historical terracotta statues analyzed by electrical resistance measurements", *Atti del 21° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Torino, Italy, 2013, CD-ROM.
737. F. Accornero, G. Lacidogna, S. Invernizzi, A. Carpinteri: "Stability assessment of masonry arches by evolutionary fracturing process analysis", *Atti del 21° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Torino, Italy, 2013, CD-ROM.
738. A. Carpinteri, G. Lacidogna, S. Cammarano: "Formulazione analitica per la progettazione dei controventi verticali in edifici di grande altezza", *Atti del 14° Congresso del Collegio dei Tecnici dell'Acciaio (CTA)*, Torino, Italy, 2013, Vol. 2, 983-990.

Year 2014

- 739. A. Carpinteri, D.M.R. Taplin, S. Yu, A.T. Yokobori (Guest Editors): "Preface" in the "Sir Alan Cottrell Memorial Issue", *Strength, Fracture and Complexity*, Vol. 8 (2013/2014), 59.
- 740. A. Carpinteri, D.M.R. Taplin: "The Cottrell Legacy: Metamorphosis of ICF into the World Academy of Structural Integrity 2011-2021", *Strength, Fracture and Complexity*, Vol. 8 (2013/2014), 61-69.
- 741. P. Cornetti, A. Sapora, A. Carpinteri: "T-stress effects on crack kinking in finite fracture mechanics", *Engineering Fracture Mechanics*, Vol. 132 (2014), 169-176.
- 742. A. Sapora, P. Cornetti, A. Carpinteri: "V-notched elements under mode II loading conditions", *Structural Engineering and Mechanics*, Vol. 49 (2014), 499-508.
- 743. A. Sapora, P. Cornetti, A. Carpinteri: "Cracks at rounded V-notch tips: An analytical expression for the stress intensity factor", *International Journal of Fracture*, Vol. 187 (2014), 285-291.
- 744. A. Carpinteri, G. Lacidogna, S. Cammarano: "Conceptual design of tall and unconventionally shaped structures: An handy analytical method", *Advances in Structural Engineering*, Vol. 17 (2014), 767-783.
- 745. I. Iturrioz, G. Lacidogna, A. Carpinteri: "Acoustic emission detection in concrete specimens: Experimental analysis and lattice model simulations", *International Journal of Damage Mechanics*, Vol. 23 (2014), 327-358.
- 746. A. Carpinteri, G. Lacidogna, B. Montrucchio, S. Cammarano: "The effect of the warping deformation on the structural behaviour of thin-walled open section shear walls", *Thin-Walled Structures*, Vol. 84 (2014), 335-343.
- 747. A. Carpinteri, A. Grazzini, G. Lacidogna, A. Manuello: "Durability evaluation of reinforced masonry by fatigue tests and acoustic emission technique", *Structural Control and Health Monitoring*, Vol. 21 (2014), 950-961.
- 748. A. Carpinteri, M. Paggi: "Lagrange and his Mécanique Analytique: From Kantian noumenon to present applications", *Meccanica*, Vol. 49 (2014), 1-11.
- 749. A. Carpinteri, M. Paggi: "The effect of crack size and specimen size on the relation between the Paris and Wöhler curves", *Meccanica*, Vol. 49 (2014), 765- 773.
- 750. A. Carpinteri, P. Cornetti, A. Sapora: "Nonlocal elasticity: An approach based on fractional calculus", *Meccanica*, Vol. 49 (2014), 2551-2569.

751. M. Corrado, M. Paggi, A. Carpinteri: "A multi-scale numerical method for the study of size-scale effects in ductile fracture", *Metals*, Vol. 4 (2014), 428-444.
752. A. Carpinteri, A. Manuello: "Reply to comments by U. Bardi, G. Comoretto on geomechanical and geochemical evidence of piezonuclear fission reactions in the Earth's Crust", *Strain*, Vol. 49 (2014), 548-551.
753. A. Carpinteri, R. Malvano, A. Manuello, G. Piana: "Fundamental frequency evolution in slender beams subjected to imposed axial displacements", *Journal of Sound and Vibration*, Vol. 333 (2014), 2390-2403.
754. A. Carpinteri, E. Cadamuro, M. Corrado: "Minimum flexural reinforcement in rectangular and T-section concrete beams", *Structural Concrete (FIB)*, Vol. 15 (2014), 361-372.
755. A. Carpinteri: "Valorizzazione e recupero del patrimonio pittorico murale del Piemonte: Il Sacro Monte di Varallo ed il progetto REFRESCOS", *Il Sacro Monte di Varallo*, Vol. 90 (2014), N. 1, 16-19.
756. A. Sapor, P. Cornetti, A. Carpinteri: "Analytical stress intensity factors for cracks at blunted v-notches", *Procedia Materials Science*, Vol. 3 (2014), 738-743.
757. P. Cornetti, A. Sapor, A. Carpinteri: "Finite fracture mechanics vs. cohesive crack modelling: An analytical comparison based on case studies", *Proceedings of the 16th European Conference on Composite Materials*, Seville, Spain, 2014, CD ROM.
758. G. Piana, A. Manuello, R. Malvano, A. Carpinteri: "Natural frequencies of long- span suspension bridges subjected to aerodynamic loads", *Proceedings of the 32nd IMAC Conference and Exposition on Structural Dynamics*, Orlando, Florida, USA, 2014, Vol. 4, 419-431.
759. A. Carpinteri, S. Cammarano: "A simplified approach for the dynamic analysis of high-rise structures", *Proceedings of the 32nd IMAC Conference and Exposition on Structural Dynamics*, Orlando, Florida, USA, 2014, Vol. 4, 509-520.
760. S. Cammarano, G. Lacidogna, B. Montrucchio, A. Carpinteri: "Experimental evaluation of the warping deformation in thin-walled open section profiles", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Greenville, South Carolina, USA, 2014, Vol. 3, 231-242.
761. G. Lacidogna, B. Montrucchio, O. Borla, A. Carpinteri: "High-frequency resonance phenomena in materials subjected to mechanical stress", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Greenville, South Carolina, USA, 2014, Vol. 5, 211-220.

762. O. Borla, G. Lacidogna, E. Di Battista, G. Niccolini, A. Carpinteri: "Electromagnetic emission as failure precursor phenomenon for seismic activity monitoring", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Greenville, South Carolina, USA, 2014, Vol. 5, 221-229.
763. A. Manuello, G. Lacidogna, G. Niccolini, A. Carpinteri: "Wireless Acoustic Emission monitoring of structural behavior", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Greenville, South Carolina, USA, 2014, Vol. 5, 231-238.
764. L. Zhou, A. Manuello, G. Lacidogna, R. Sesana, A. Carpinteri: "Acoustic emission monitoring of rock specimens during fatigue tests", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Greenville, South Carolina, USA, 2014, Vol. 5, 239-246.
765. A. Carpinteri O. Borla, A. Goi, S. Guastella, A. Manuello, D. Veneziano: "Hydrogen embrittlement and cold fusion effects in palladium during electrolysis experiments", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Greenville, South Carolina, USA, 2014, Vol. 6, 37-47.
766. G. Piana, A. Manuello, R. Malvano, A. Carpinteri: "Fundamental frequencies of slender beams subject to imposed axial end displacements", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Greenville, South Carolina, USA, 2014, Vol. 6, 59-66.
767. A. Carpinteri: "Dalla formazione degli oceani all'effetto serra: Alcuni dei maggiori fenomeni del nostro pianeta interpretati sotto una nuova luce", *Accademia delle Scienze, Republic of San Marino*, 16° Premio Marconi, 2014, 9- 13.

Year 2015

768. P. Cornetti, M. Corrado, L. De Lorenzis, A. Carpinteri: "An analytical cohesive crack modeling approach to the edge debonding failure of FRP-plated beams", *International Journal of Solids and Structures*, Vol. 53 (2015), 92-106.
769. A. Sapora, P. Cornetti, A. Carpinteri, D. Firrao: "Blunt V-notch brittle fracture: An improved finite fracture mechanics approach", *Advanced Materials Research*, Vol. 1105 (2015), 237-244.
770. A. Sapora, P. Cornetti, A. Carpinteri, D. Firrao: "An improved finite fracture mechanics approach to blunt V-notch brittle fracture mechanics: Experimental verification on ceramic, metallic, and plastic materials", *Theoretical and Applied Fracture Mechanics*, Vol. 78 (2015), 20-24.

771. Q. Han, L. Wang, J. Xu, G. Lacidogna, A. Carpinteri: "A robust method to estimate the b-value of the magnitude-frequency distribution of earthquakes", *Chaos, Solitons and Fractals*, Vol. 81 (2015), 103-110.
772. Q. Han, J. Xu, A. Carpinteri, G. Lacidogna: "Localization of acoustic emission sources in structural health monitoring of a masonry bridge", *Structural Control and Health Monitoring*, Vol. 22 (2015), 314-329.
773. Q. Han, A. Carpinteri, G. Lacidogna, J. Xu: "Fractal analysis and Yule statistics for seismic prediction based on 2009 L'Aquila earthquake in Italy", *Arab Journal of Geosciences*, Vol. 8 (2015), 2457-2465.
774. G. Lacidogna, A. Manuello, G. Niccolini, A. Carpinteri: "Acoustic emission monitoring of Italian historical buildings and the case study of the Athena temple in Syracuse", *Architectural Science Review*, Vol. 58 (2015), 290-299.
775. A. Carpinteri, G. Lacidogna, F. Accornero: "Evolution of fracturing process in masonry arches", *Journal of Structural Engineering (ASCE)*, Vol. 141 (2015), 4014132/1-4014132/10.
776. A. Carpinteri, A. Manuello, D. Veneziano, N.D. Cook: "Piezonuclear fission reactions simulated by the lattice model", *Journal of Condensed Matter Nuclear Science*, Vol. 15 (2015), 149-161.
777. A. Carpinteri, O. Borla, A. Manuello, D. Veneziano, A. Goi: "Hydrogen embrittlement and piezonuclear reactions in electrolysis experiments", *Journal of Condensed Matter Nuclear Science*, Vol.15 (2015), 162-182.
778. U. Lucia, A. Carpinteri: "GeV plasmons and spalling neutrons from crushing of iron-rich natural rocks", *Chemical Physics Letters*, Vol. 640 (2015), 112-114.
779. A. Carpinteri, G. Lacidogna, F. Accornero, S. Invernizzi: "Numerical simulation of the fracturing processes in masonry arches", *Proceedings in Applied Mathematics and Mechanics*, Vol. 15 (2015), 131-132.
780. A. Saporita, P. Cornetti, A. Carpinteri, D. Firrao: "Brittle materials and stress concentrations: Are they able to withstand?", *Procedia Engineering*, Vol. 109 (2015), 296-302.
781. G. Niccolini, O. Borla, F. Accornero, G. Lacidogna, A. Carpinteri: "Scaling in damage by electrical resistance measurements: An application to the terracotta statues of the Sacred Mountain of Varallo Renaissance Complex (Italy)", *Rendiconti Lincei, Scienze Fisiche e Naturali*, Vol. 26 (2015), 203-209.

782. G. Lacidogna, P. Cutugno, G. Niccolini, S. Invernizzi, A. Carpinteri: "Correlation between earthquakes and AE monitoring of historical buildings in seismic areas", *Applied Sciences*, Vol. 5 (2015), 1683-1698.
783. E. Lofrano, A. Carpinteri, R. Malvano, A. Manuello, G. Piana, G. Ruta: "PZT experimental detection of natural frequencies for compressed thin-walled beams", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Costa Mesa, California, USA, 2015, Vol. 1, 103-112.
784. G. Piana, M. Brunetti, A. Carpinteri, R. Malvano, A. Manuello, A. Paolone: "On the use of piezoelectric sensors for experimental modal analysis", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Costa Mesa, California, USA, 2015, Vol. 1, 113-121.
785. A. Carpinteri: "Opto-acoustic and neutron emissions from fracture and earthquakes", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Costa Mesa, California, USA, 2015, Vol. 8, 135-140.
786. O. Borla, G. Lacidogna, E. Di Battista, M. Costantino, A. Carpinteri: "Environmental protection by the opto-acoustic and neutron emission seismic precursors", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Costa Mesa, California, USA, 2015, Vol. 8, 165-173.
787. A. Manuello, R. Malvano, O. Borla, A. Palumbo, A. Carpinteri: "Neutron emissions from hydrodynamic cavitation", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Costa Mesa, California, USA, 2015, Vol. 8, 175-182.
788. A. Carpinteri, O. Borla, A. Goi, S.A. Guastella, A. Manuello, R. Sesana, D. Veneziano: "Compositional variations in palladium electrodes exposed to electrolysis", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Costa Mesa, California, USA, 2015, Vol. 8, 187-195.
789. G. Lacidogna, S. Invernizzi, B. Montrucchio, O. Borla, A. Carpinteri: "Analysis of high-frequency vibrational modes through laser pulses", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Costa Mesa, California, USA, 2015, Vol. 9, 93-104.
790. S. Invernizzi, G. Lacidogna, A. Carpinteri: "Numerical methods for the interpretation and exploitation of AE monitoring results", *Proceedings of the 6th International Conference on Emerging Technologies in NDT (ETNDT-6)*, Brussels, Belgium, 2015, 413-419.
791. G. Lacidogna, P. Cutugno, F. Accornero, S. Invernizzi, A. Carpinteri: "Evaluation of seismic risk in regional areas by AE monitoring of historical buildings",

- 792. G. Lacidogna, A. Manuello, G. Niccolini, F. Accornero, A. Carpinteri: "Acoustic emission wireless monitoring of structures", in *Acoustic Emission and Related Non-destructive Evaluation Techniques in the Fracture Mechanics of Concrete*, Ed. M. Ohtsu, Woodhead Publishing, Sawston, Cambridge (2015), 15-40.
- 793. G. Niccolini, A. Schiavi, A. Carpinteri, G. Lacidogna: "Scaling and correlation of time recurrence in fracture systems", in *Statistical Mechanics and Random Walks: Principles, Processes and Applications*, Eds. A. Skogseid, V. Fasano, Nova Science Publishers, New York (2015), 153-164.
- 794. A. Carpinteri: "TeraHertz phonons and piezonuclear reactions from nano-scale mechanical instabilities", in *Acoustic, Electromagnetic, Neutron Emissions from Fracture and Earthquakes*, Springer International Publishing Switzerland (2015), 1-10.
- 795. G. Lacidogna, O. Borla, G. Niccolini, A. Carpinteri: "Correlation between acoustic and other forms of energy emissions from fracture phenomena", in *Acoustic, Electromagnetic, Neutron Emissions from Fracture and Earthquakes*, Springer International Publishing Switzerland (2015), 11-22.
- 796. A. Manuello, R. Sandrone, S. Guastella, O. Borla, G. Lacidogna, A. Carpinteri: "Neutron emissions and compositional changes at the compression failure of iron-rich natural rocks", in *Acoustic, Electromagnetic, Neutron Emissions from Fracture and Earthquakes*, Springer International Publishing Switzerland (2015), 23-37.
- 797. A. Carpinteri, F.M. Curà, R. Sesana, A. Manuello, O. Borla, G. Lacidogna: "Frequency-dependent neutron emissions during fatigue tests on iron-rich natural rocks", in *Acoustic, Electromagnetic, Neutron Emissions from Fracture and Earthquakes*, Springer International Publishing Switzerland (2015), 39-56.
- 798. A. Carpinteri, G. Lacidogna, O. Borla: "Alpha particle emissions from Carrara marble specimens crushed in compression and x-ray photoelectron spectroscopy of correlated nuclear transmutations", in *Acoustic, Electromagnetic, Neutron Emissions from Fracture and Earthquakes*, Springer International Publishing Switzerland (2015), 57-71.
- 799. A. Carpinteri, O. Borla, G. Lacidogna: "Elemental content variations in crushed mortar specimens measured by instrumental neutron activation analysis (INAA)", in *Acoustic, Electromagnetic, Neutron Emissions from Fracture and Earthquakes*, Springer International Publishing Switzerland (2015), 73-82.

800. S. Invernizzi, O. Borla, G. Lacidogna, A. Carpinteri: "Piezonuclear evidences from tensile and compression tests on steel", in *Acoustic, Electromagnetic, Neutron Emissions from Fracture and Earthquakes*, Springer International Publishing Switzerland (2015), 83-97.
801. A. Carpinteri, O. Borla, A. Goi, A. Manuello, D. Veneziano: "Cold nuclear fusion explained by hydrogen embrittlement and piezonuclear fissions in the metallic electrodes – Part I: Ni-Fe and Co-Cr electrodes", in *Acoustic, Electromagnetic, Neutron Emissions from Fracture and Earthquakes*, Springer International Publishing Switzerland (2015), 99-121.
802. A. Carpinteri, O. Borla, A. Goi, S. Guastella, A. Manuello, D. Veneziano: "Cold nuclear fusion explained by hydrogen embrittlement and piezonuclear fissions in the metallic electrodes – Part II: Pd and Ni electrodes", in *Acoustic, Electromagnetic, Neutron Emissions from Fracture and Earthquakes*, Springer International Publishing Switzerland (2015), 123-134.
803. O. Borla, G. Lacidogna, A. Carpinteri: "Piezonuclear neutron emissions from earthquakes and volcanic eruptions", in *Acoustic, Electromagnetic, Neutron Emissions from Fracture and Earthquakes*, Springer International Publishing Switzerland (2015), 135-151.
804. A. Carpinteri, G. Lacidogna, O. Borla: "Is the Shroud of Turin in relation to the old Jerusalem historical earthquake?", in *Acoustic, Electromagnetic, Neutron Emissions from Fracture and Earthquakes*, Springer International Publishing Switzerland (2015), 153-162.
805. A. Carpinteri, A. Manuello: "Evolution and fate of chemical elements in the Earth's crust, ocean, and atmosphere", in *Acoustic, Electromagnetic, Neutron Emissions from Fracture and Earthquakes*, Springer International Publishing Switzerland (2015), 163-181.
806. A. Carpinteri, A. Manuello, L. Negri: "Chemical evolution in the Earth's mantle and its explanation based on piezonuclear fission reactions", in *Acoustic, Electromagnetic, Neutron Emissions from Fracture and Earthquakes*, Springer International Publishing Switzerland (2015), 183-196.
807. A. Carpinteri, A. Manuello, L. Negri: "Piezonuclear fission reactions triggered by fracture and turbulence in the rocky and gaseous planets of the Solar System", in *Acoustic, Electromagnetic, Neutron Emissions from Fracture and Earthquakes*, Springer International Publishing Switzerland (2015), 197-218.
808. N.D. Cook, A. Manuello, D. Veneziano, A. Carpinteri: "Piezonuclear fission reactions simulated by the lattice model of the atomic nucleus", in *Acoustic, Electromagnetic, Neutron Emissions from Fracture and Earthquakes*, Springer International Publishing Switzerland (2015), 219-235.

809. G. Niccolini, O. Borla, G. Lacidogna, A. Carpinteri: "Correlated fracture precursors in rocks and cement based materials under stress", in *Acoustic, Electromagnetic, Neutron Emissions from Fracture and Earthquakes*, Springer International Publishing Switzerland (2015), 237-248.
810. F. Accornero, S. Invernizzi, G. Lacidogna, A. Carpinteri: "The Sacred Mountain of Varallo renaissance complex in Italy: Damage analysis of decorated surfaces and structural supports", in *Acoustic, Electromagnetic, Neutron Emissions from Fracture and Earthquakes*, Springer International Publishing Switzerland (2015), 249-264.

Year 2016

811. R. Jones, F. Chen, S. Pitt, M. Paggi, A. Carpinteri: "From NASGRO to fractals: Representing crack growth in metals", *International Journal of Fatigue*, Vol. 82 (2016), 540-549.
812. A. Carpinteri, F. Bazzucchi, A. Manuello: "Nonlinear instability analysis of long- span roofing structures: The case-study of Porta Susa railway-station", *Engineering Structures*, Vol. 110 (2016), 48-58.
813. A. Carpinteri, G. Lacidogna, G. Nitti: "Open and closed shear-walls in high-rise structural systems: Static and dynamic analysis", *Curved and Layered Structures*, Vol. 3 (2016), 154-171.
814. A. Carpinteri, G. Lacidogna, M. Corrado, E. Di Battista: "Cracking and crackling in concrete-like materials: A dynamic energy balance", *Engineering Fracture Mechanics*, Vol. 155 (2016), 130-144.
815. D. Firrao, P. Matteis, A. Sapora, P. Cornetti, A. Carpinteri: "A coupled FFM model to interpret fracture toughness values for brittle materials", *Procedia Structural Integrity*, Vol. 2 (2016), 1893-1990.
816. A. Sapora, P. Cornetti, A. Carpinteri, V. Mantic: "Crack deflection in brittle materials by Finite Fracture Mechanics", *Procedia Structural Integrity*, Vol. 2 (2016), 1975-1982.
817. A. Sapora, P. Cornetti, A. Carpinteri, O. Baglieri, E. Santagata: "The use of fractional calculus to model the experimental creep-recovery behavior of modified bituminous binders", *Materials and Structures (RILEM)*, Vol. 49 (2016), 45-55.
818. A. Carpinteri, G. Lacidogna, A. Manuello, G. Niccolini: "A study on the structural stability of the Asinelli Tower in Bologna", *Structural Control and Health Monitoring*, Vol. 23 (2016), 659-667.

819. G. Birck, I. Iturrioz, G. Lacidogna, A. Carpinteri: "Damage process in heterogeneous materials analyzed by a lattice model simulation", *Engineering Failure Analysis*, Vol. 70 (2016), 157-176.
820. F. Accornero, G. Lacidogna, A. Carpinteri: "Evolutionary fracture analysis of masonry arches: Effects of shallowness ratio and size scale", *Comptes Rendus Mécanique*, Vol. 344 (2016), 623-630.
821. F. Cardone, A. Manuello, R. Mignani, A. Petrucci, E. Santoro, M. Sepielli, A. Carpinteri: "Ultrasonic piezonuclear reactions in steel and sintered ferrite bars", *Journal of Advanced Physics*, Vol. 5 (2016), 69-75.
822. G. Piana, E. Lofrano, A. Carpinteri, A. Paolone, G. Ruta: "Experimental modal analysis of straight and curved slender beams by piezoelectric transducers", *Meccanica*, Vol. 51 (2016), 2797-2811.
823. P. Cornetti, A. Sapor, A. Carpinteri: "Short cracks and V-notches: Finite fracture mechanics Vs. cohesive crack model", *Engineering Fracture Mechanics*, Vol. 168 (2016), 2-12.
824. S. Invernizzi, G. Lacidogna, A. Carpinteri: "Numerical models for the assessment of historical masonry structures and materials, monitored by acoustic emission", *Applied Sciences*, Vol. 6 (2016), Paper N. 102.
825. G. Piana, A. Carpinteri, E. Lofrano, R. Malvano, A. Manuello, G. Ruta: "Experimental and numerical elastodynamic analysis of compressed open thin-walled beams", *Proceedings of the 34th IMAC Conference and Exposition on Structural Dynamics*, Orlando, Florida, USA, 2016, Vol. 10, 125-138.
826. A. Carpinteri, G. Lacidogna, G. Piana: "Concrete specimens under four-point bending: Correlation between acoustic emission signals and modal frequency variation", *Proceedings of the 8th International Conference on Acoustic Emission*, Kyoto, Japan, 2016, 243-250.
827. F. Bazzucchi, A. Carpinteri, A. Manuello: "Interaction between different instability phenomena in shallow roofing structures affected by geometrical imperfections", in *Spatial Structures in the 21st Century* (Proceedings of the IASS Symposium, Tokyo, Japan, 2016), Paper N. 1275.
828. A. Manuello, F. Bazzucchi, A. Carpinteri: "Step-by-step stability analysis of shallow grid shells: Buckling versus snap-through", in *Spatial Structures in the 21st Century* (Proceedings of the IASS Symposium, Tokyo, Japan, 2016), Paper N. 1277.
829. G. Lacidogna, F. Accornero, A. Carpinteri: "Masonry structures", in *Innovative AE and NDT Techniques for On-Site Measurement of Concrete and Masonry Structures* (RILEM), Ed. M. Othsu, Springer, Heidelberg (2016), 27-46.

Year 2017

- 830. A. Carpinteri: "Static-kinematic duality in beams, plates, shells and its central role in the finite element method", *Curved and Layered Structures*, Vol. 4 (2017), 38- 51.
- 831. J.X. Tao, N.V. Viet, A. Carpinteri, Q. Wang: "Energy harvesting from wind by a piezoelectric harvester", *Engineering Structures*, Vol. 133 (2017), 74-80.
- 832. X.D. Xie, A. Carpinteri, Q. Wang: "A theoretical model for a piezoelectric energy harvester with a tapered shape", *Engineering Structures*, Vol. 144 (2017), 19-25.
- 833. F. Bazzucchi, A. Manuello, A. Carpinteri: "Interaction between snap-through and Eulerian instability in shallow structures", *International Journal of Non-linear Mechanics*, Vol. 88 (2017), 11-20.
- 834. F. Bazzucchi, A. Manuello, A. Carpinteri: "Instability load evaluation of shallow imperfection-sensitive structures by form and interaction parameters", *European Journal of Mechanics A/Solids*, Vol. 66 (2017), 201-211.
- 835. G. Piana, E. Lofrano, A. Manuello, G. Ruta, A. Carpinteri: "Compressive buckling for symmetric TWB with non-zero warping stiffness", *Engineering Structures*, Vol. 135 (2017), 246-258.
- 836. G. Piana, A. Carpinteri, E. Lofrano, G. Ruta: "Vibration and buckling of open TWBs with local weakening", *Procedia Engineering*, Vol. 199 (2017), 242-247.
- 837. A. Carpinteri, G. Lacidogna, G. Piana, A. Bassani: "TeraHertz mechanical vibrations in lysozyme: Raman spectroscopy vs modal analysis", *Journal of Molecular Structure*, Vol. 1139 (2017), 222-230.
- 838. G. Lacidogna, G. Piana, A. Bassani, A. Carpinteri: "Raman spectroscopy of Na/K- ATPase with special focus on low-frequency vibrations", *Vibrational Spectroscopy*, Vol. 92 (2017), 298-301.
- 839. A. Carpinteri, O. Borla: "Fracto-emissions as seismic precursors", *Engineering Fracture Mechanics*, Vol. 177 (2017), 239-250.
- 840. G. Niccolini, A. Manuello, E. Marchis, A. Carpinteri: "Signal frequency distribution and natural-time analyses from acoustic emission monitoring of an arched structure in the Castle of Racconigi", *Natural Hazards and Earth System Sciences*, Vol. 17 (2017), 1025-1032.

841. G. Lacidogna, G. Piana, A. Carpinteri: "Acoustic emission and modal frequency variation in concrete specimens under four-point bending", *Applied Sciences*, Vol. 7 (2017), Paper N. 339.
842. O. Baglieri, E. Santagata, A. Sapor, P. Cornetti, A. Carpinteri: "Fractional viscoelastic modeling of antirutting response of bituminous binders", *Journal of Engineering Mechanics (ASCE)*, Vol. 143 (2017), 1-8.
843. A. Carpinteri, O. Borla: "Nanomechanics instabilities and TeraHertz vibrations: From geochemical evolution to fracto-emission seismic precursors", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Indianapolis, Indiana, USA, 2017, Vol. 5, 1-5.
844. A. Carpinteri, O. Borla, A. Manuello, G. Niccolini: "Energy balance during electrolysis and cavitation experiments", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Indianapolis, Indiana, USA, 2017, Vol. 5, 37-40.
845. A. Carpinteri, G. Lacidogna, A. Bassani, G. Piana: "Global vibrational modes in proteins: Raman spectroscopy and numerical modeling", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Indianapolis, Indiana, USA, 2017, Vol. 4, 15-18.
846. A. Manuello, F. Bazzucchi, A. Carpinteri: "Snap-through and local buckling interaction in a timber dome: Bracing system vs. connection stiffness", in *Interfaces: Architecture, Engineering, Science* (Proceedings of the IASS Symposium, Hamburg, Germany, 2017), Paper N. 10074.
847. F. Bazzucchi, A. Manuello, A. Carpinteri: "Instability assessment of shallow structures using image capturing", in *Interfaces: Architecture, Engineering, Science* (Proceedings of the IASS Symposium, Hamburg, Germany, 2017), Paper N. 10075.
848. G. Niccolini, G. Lacidogna, A. Carpinteri: "Acoustic emission monitoring of in- service large-sized structures", in *Focus on Acoustic Emission Research*, Nova Science Publishers, New York (2017), 134-149.
849. G. Lacidogna, S. Invernizzi, F. Accornero, A. Carpinteri: "Il Sacro Monte di Varallo: Valutazione del rischio sismico tramite monitoraggio con le Emissioni Acustiche e modelli numerici strutturali", in *Il Patrimonio Pittorico Murale dei Sacri Monti: Monitoraggio, Valorizzazione e Recupero*, A. Carpinteri (a cura di), Aracne Editrice, Roma (2017), 61-84.
850. F. Accornero, S. Invernizzi, G. Lacidogna, A. Carpinteri: "Analisi del danneggiamento delle murature affrescate tramite la tecnica delle Emissioni Acustiche", in *Il Patrimonio Pittorico Murale dei Sacri Monti: Monitoraggio*,

Valorizzazione e Recupero, A. Carpinteri (a cura di), Aracne Editrice, Roma (2017), 85-108.

- 851. G. Niccolini, O. Borla, F. Accornero, G. Lacidogna, A. Carpinteri: "Proprietà di scala del danneggiamento da misure di resistenza elettrica: Un'applicazione alle statue in terracotta del Complesso rinascimentale del Sacro Monte di Varallo", in *Il Patrimonio Pittorico Murale dei Sacri Monti: Monitoraggio, Valorizzazione e Recupero*, A. Carpinteri (a cura di), Aracne Editrice, Roma (2017), 109-120.
- 852. O. Borla, A. Carpinteri: "Fracto-emissions as seismic precursors: The case study of «San Pietro-Prato Nuovo» gypsum mine", *Atti del 23° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Salerno, Italy, 2017, Vol. 1, 1-7.
- 853. G. Nitti, G. Lacidogna, A. Carpinteri: "Tall buildings subjected to horizontal loading: Analysis of two case studies by an in-house numerical code", *Atti del 23° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Salerno, Italy, 2017, Vol. 1, 292-300.
- 854. G. Piana, E. Lofrano, A. Carpinteri, G. Ruta: "Buckling of an open thin-walled beam with an intermediate stiffener", *Atti del 23° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Salerno, Italy, 2017, Vol. 3, 800-807.

Year 2018

- 855. J. Xu, F. Zhengwu, H. Qinghua, G. Lacidogna, A. Carpinteri: "Micro-cracking monitoring and fracture evaluation for crumb rubber concrete based on acoustic emission techniques", *Structural Health Monitoring*, Vol. 17 (2018), 946-958.
- 856. N. V. Viet, Q. Wang, A. Carpinteri: "Development of an ocean wave harvester with a built-in frequency conversion function", *International Journal of Energy Research*, Vol. 42 (2018), 684-695.
- 857. A. Carpinteri, G. Niccolini, G. Lacidogna: "Time series analysis of acoustic emissions in the Asinelli Tower during local seismic activity", *Applied Sciences*, Vol. 8 (2018), Paper N. 1012.
- 858. A. Carpinteri, G. Lacidogna, F. Accornero: "Fluctuations of 1/f noise in damaging structures analyzed by Acoustic Emission", *Applied Sciences*, Vol. 8 (2018), Paper N. 1685.
- 859. A. Carpinteri, F. Accornero: "Multiple snap-back instabilities in progressive microcracking coalescence", *Engineering Fracture Mechanics*, Vol. 187 (2018), 272-281.

860. F. Accornero, G. Lacidogna, A. Carpinteri: "Medieval arch bridges in the Lanzo valleys, Italy: Case studies on incremental structural analysis and fracturing benefit", *Journal of Bridge Engineering (ASCE)*, Vol. 23 (2018), 05018005/1-05018005/11.
861. A. Carpinteri, M. Corrado, B. Gong, P. Perdonò: "Experimental evidence and numerical simulation of size effects on the ductile fracture of metallic materials", *International Journal of Fracture*, Vol. 211 (2018), 43-59.
862. A. Carpinteri, O. Borla: "Nano-scale fracture phenomena and TeraHertz pressure waves as the fundamental reasons for geochemical evolution", *Strength, Fracture and Complexity*, Vol. 11 (2018), 149-168.
863. G. Lacidogna, G. Piana, F. Accornero, A. Carpinteri: "Experimental investigation on crack growth in pre-notched concrete beams", in *Proceedings* (Proceedings of the 18th International Conference on Experimental Mechanics (ICEM), Brussels, Belgium 2018), Vol. 2, Paper N. 429.

Year 2019

864. A. Carpinteri, F. Accornero: "Rotation versus curvature fractal scaling in bending failure", *Physical Mesomechanics*, Vol. 22 (2019), 46-51.
865. A. Carpinteri, G. Piana, A. Bassani, G. Lacidogna: "Terahertz vibration modes in Na/K-ATPase", *Journal of Biomolecular Structure and Dynamics*, Vol. 37 (2019), 256-264.
866. Q. Han, J. Li, J. Xu, F. Ye, A. Carpinteri, G. Lacidogna: "A new frequency domain method for random fatigue life estimation in a wide-band stationary Gaussian random process", *Fatigue and Fracture of Engineering Materials and Structures*, Vol. 42 (2019), 97-113.
867. G. Lacidogna, F. Accornero, A. Carpinteri: "Influence of snap-back instabilities on Acoustic Emission damage monitoring", *Engineering Fracture Mechanics*, Vol. 210 (2019), 3-12.
868. A. Carpinteri, O. Borla: "Acoustic, electromagnetic, and neutron emissions as seismic precursors: The lunar periodicity of low-magnitude seismic swarms", *Engineering Fracture Mechanics*, Vol. 210 (2019), 29-41.
869. Q. Han, G. Yang, J. Xu, Z. Fu, G. Lacidogna, A. Carpinteri: "Acoustic emission data analyses based on crumb rubber concrete beam bending tests", *Engineering Fracture Mechanics*, Vol. 210 (2019), 189-202.

870. G. Lacidogna, G. Piana, A. Carpinteri: "Damage monitoring of three-point bending concrete specimens by acoustic emission and resonant frequency analysis", *Engineering Fracture Mechanics*, Vol. 210 (2019), 203-211.
871. A. Manuello, G. Niccolini, A. Carpinteri: "AE monitoring of a concrete arch road tunnel: Damage evolution and localization", *Engineering Fracture Mechanics*, Vol. 210 (2019), 279-287.
872. G. Niccolini, G. Lacidogna, A. Carpinteri: "Fracture precursors in a working girder crane: AE natural-time and b-value time series analyses", *Engineering Fracture Mechanics*, Vol. 210 (2019), 393-399.
873. S. Invernizzi, G. Lacidogna, N.E. Lozano-Ramirez, A. Carpinteri: "Structural monitoring and assessment of an ancient masonry tower", *Engineering Fracture Mechanics*, Vol. 210 (2019), 429-443.
874. A. Carpinteri, G. Niccolini: "Correlation between the fluctuations in worldwide seismicity and atmospheric carbon pollution", *Sci*, Vol. 1 (2019), Paper N. 17.
875. G. Lacidogna, D. Scaramozzino, A. Carpinteri: "A matrix-based method for the structural analysis of diagrid systems", *Engineering Structures*, Vol. 193 (2019), 340-352.
876. G. Nitti, G. Lacidogna, A. Carpinteri: "Structural analysis of high-rise buildings under horizontal loads: A study on the Piedmont Region Headquarters Tower in Turin", *The Open Construction and Building Technology Journal*, Vol. 13 (2019), 81-96.
877. D. Scaramozzino, G. Lacidogna, G. Piana, A. Carpinteri: "A finite-element-based coarse-grained model for global protein vibration", *Meccanica*, Vol. 54 (2019), 1927-1940.
878. A. Carpinteri, F. Accornero: "The Bridged Crack Model with multiple fibers: Local instabilities, scale effects, plastic shake-down, and hysteresis", *Theoretical and Applied Fracture Mechanics*, Vol. 104 (2019), Paper N. 102351.
879. A. Carpinteri, F. Accornero: "Static–kinematic duality in the shells of revolution: Historical aspects and present developments", *Archive of Applied Mechanics*, Vol. 89 (2019), 2313-2320.
880. Y. Li, B. Gong, G. Lacidogna, A. Carpinteri, D. Wang: "An improved crack driving force estimation approach for stress-based engineering critical assessment of reeled pipes", *Theoretical and Applied Fracture Mechanics*, Vol. 103 (2019), Paper N. 102312.

881. N.V. Viet, A. Carpinteri, Q. Wang: "A novel heaving ocean wave energy harvester with a frequency tuning capability", *Arabian Journal for Science and Engineering*, Vol. 44 (2019), 5711-5722.
882. P. Cornetti, M. Muñoz-Reja, A. Sapora, A. Carpinteri: "Finite fracture mechanics and cohesive crack model: Weight functions vs. cohesive laws", *International Journal of Solids and Structures*, Vol. 156-157 (2019), 126-136.
883. A. Carpinteri, F. Montagnoli: "Scaling and fractality in fatigue crack growth: Implications to Paris' law and Wöhler's curve", *Procedia Structural Integrity*, Vol. 14 (2019), 957-963; *Proceedings of the 2nd International Conference on Structural Integrity and Exhibition, SICE 2018*, Hyderabad, India, 2018.
884. S. Invernizzi, F. Montagnoli, A. Carpinteri: "Fatigue assessment of the collapsed XXth century cable-stayed Polcevera bridge in Genoa", *Procedia Structural Integrity*, Vol. 18 (2019), 237-244; *Proceedings of the 25th International Conference on Fracture and Structural Integrity, IGF 2019*, Catania, Italy, 2019.
885. A. Manuello, D. Masera, A. Carpinteri: "AE damage assessment in the bell tower of the Turin cathedral", *Key Engineering Materials*, Vol. 817 (2019), 579-585; *Proceedings of the 6th International Conference on Mechanics of Masonry Structures Strengthened with Composite Materials, MuRiCo6*, Bologna, Italy, 2019.
886. G. Lacidogna, G. Niccolini, A. Carpinteri: "Health monitoring of medieval masonry towers by an acoustic emission approach", *Key Engineering Materials*, Vol. 817 (2019), 586-593; *Proceedings of the 6th International Conference on Mechanics of Masonry Structures Strengthened with Composite Materials, MuRiCo6*, Bologna, Italy, 2019.
887. G. Lacidogna, D. Scaramozzino, G. Piana, A. Carpinteri: "Terahertz protein vibrations: The usefulness of coarse-grained numerical models", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Reno, Nevada, USA, 2019, Vol. 4, 1-6.
888. D. Scaramozzino, G. Lacidogna, A. Carpinteri: "Protein conformational changes and low-frequency vibrational modes: A similarity analysis", *Conference & Exposition on Experimental and Applied Mechanics (SEM)*, Reno, Nevada, USA, 2019, Vol. 4, 7-10.
889. O. Borla, A. Carpinteri: "Correlation between fracto-emissions and statistical seismic precursors in the case of low-magnitude earthquakes", *Atti del 24° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Roma, Italy, 2019, *Lecture Notes in Mechanical Engineering* (2020), 3-10.

890. S. Invernizzi, F. Montagnoli, A. Carpinteri: "Corrosion fatigue investigation on the possible collapse reasons of Polcevera bridge in Genoa", *Atti del 24° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Roma, Italy, 2019, *Lecture Notes in Mechanical Engineering* (2020), 151-159.
891. F. Montagnoli, S. Invernizzi, A. Carpinteri: "Fractality and size effect in fatigue damage accumulation: Comparison between Paris and Wöhler perspectives", *Atti del 24° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Roma, Italy, 2019, *Lecture Notes in Mechanical Engineering* (2020), 188-196.
892. F. Accornero, A. Carpinteri: "Fiber-reinforced brittle-matrix composites: Discontinuous phenomena and optimization of the components", *Atti del 24° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Roma, Italy, 2019, *Lecture Notes in Mechanical Engineering* (2020), 550-557.
893. G. Lacidogna, D. Scaramozzino, G. Piana, A. Carpinteri: "Exploring THz protein vibrations by means of modal analysis: All-atom vs coarse-grained model", *Atti del 24° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Roma, Italy, 2019, *Lecture Notes in Mechanical Engineering* (2020), 881-888.
894. D. Scaramozzino, G. Lacidogna, A. Carpinteri: "Protein conformational changes: What can geometric nonlinear analysis tell us?", *Atti del 24° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Roma, Italy, 2019, *Lecture Notes in Mechanical Engineering* (2020), 889-897.
895. A. Manuello, A. Carpinteri: "Stability evaluation by digital image correlation of a masonry vault prototype under loading", *Atti del 24° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Roma, Italy, 2019, *Lecture Notes in Mechanical Engineering* (2020), 958-966.
896. G. Piana, A. Carpinteri: "On the influence of drag force modeling in long-span suspension bridge flutter analysis", *Atti del 24° Congresso Nazionale di Meccanica Teorica ed Applicata (AIMETA)*, Roma, Italy, 2019, *Lecture Notes in Mechanical Engineering* (2020), 1387-1396.
897. A. Carpinteri, F. Accornero: "Ductile-to-brittle transition in fiber-reinforced brittle-matrix composites: Scale and fiber volume fraction effects", *Proceedings of the 10th International Conference on Fracture Mechanics of Concrete and Concrete Structures (FraMCoS-X)*, Bayonne, France, 2019, DOI: 10.21012/FC10.234076

Year 2020

898. G. Lacidogna, G. Nitti, D. Scaramozzino, A. Carpinteri: "Diagrid systems coupled with closed- and open-section shear walls: Optimization of geometrical characteristics in tall buildings", *Procedia Manufacturing*, Vol. 44 (2020), 402-

899. T. Kishi, A. Carpinteri, S.W. Yu: "Preface", *Strength, Fracture and Complexity*, Memorial Issue in the Honour of Professor Takeo Yokobori, Vol. 12 (2020), 61- 62.
900. A. Carpinteri, F. Accornero: "Residual crack opening in fiber-reinforced structural elements subjected to cyclic loading", *Strength, Fracture and Complexity*, Vol. 12 (2020), 63-74.
901. A. Carpinteri, F. Montagnoli: "Scaling and fractality in subcritical fatigue crack growth: Crack-size effects on Paris' law and fatigue threshold", *Fatigue and Fracture of Engineering Materials and Structures*, Vol. 43 (2020), 788-801.
902. A. Carpinteri, F. Montagnoli, S. Invernizzi: "Scaling and fractality in fatigue resistance: Specimen-size effects on Wöhler's curve and fatigue limit", *Fatigue and Fracture of Engineering Materials and Structures*, Vol. 43 (2020), 1869-1879.
903. G. Lacidogna, G. Piana, F. Accornero, A. Carpinteri: "Multi-technique damage monitoring of concrete beams: Acoustic Emission, Digital Image Correlation, Dynamic Identification", *Construction and Building Materials*, Vol. 242 (2020), Paper N. 118114.
904. L.E. Kostas, I. Iturrioz, G. Lacidogna, A. Carpinteri: "Size effect in heterogeneous materials analyzed through a lattice discrete element method approach", *Engineering Fracture Mechanics*, Vol. 232 (2020), Paper N. 107041.
905. D. Scaramozzino, G. Lacidogna, A. Carpinteri: "New trends towards enhanced structural efficiency and aesthetic potential in tall buildings: The case of diagrids", *Applied Sciences*, Vol. 10 (2020), Paper N. 3917.
906. A. Manuello, D. Masera, A. Carpinteri: "Acoustic emission monitoring of the Turin cathedral bell tower: Foreshock and aftershock discrimination", *Applied Sciences*, Vol. 10 (2020), Paper N. 3931.
907. D. Scaramozzino, P.M. Khade, R.L. Jernigan, G. Lacidogna, A. Carpinteri: "Structural compliance: A new metric for protein flexibility", *Proteins: Structure, Function and Bioinformatics*, Vol. 88 (2020), 1482-1492.
908. Z. Zhu, Z. Xiang, J. Li, A. Carpinteri: "Fatigue damage investigation on diaphragm cutout detail on orthotropic bridge deck based on field measurement and FEM", *Thin-Walled Structures*, Vol. 157 (2020), Paper N. 107106.
909. G. Niccolini, A. Rubino, A. Carpinteri: "Dimensional transitions in creeping materials due to nonlinearity and microstructural disorder", *Chaos, Solitons and Fractals*, Vol. 141 (2020), Paper N. 110345.

910. G. Lacidogna, D. Scaramozzino, A. Carpinteri: "Optimization of diagrid geometry based on the desirability function approach", *Curved and Layered Structures*, Vol. 7 (2020), 139-152.
911. G. Lacidogna, D. Scaramozzino, A. Carpinteri: "Influence of the geometrical shape on the structural behavior of diagrid tall buildings under lateral and torque actions", *Developments in the Built Environment*, Vol. 2 (2020), Paper N. 100009.
912. F. Accornero, A. Rubino, A. Carpinteri: "Ductile-to-brittle transition in fibre-reinforced concrete beams: Scale and fibre volume fraction effects", *Material Design & Processing Communications*, Vol. 2 (2020), Paper N. e127.
913. A. Carpinteri, G. Niccolini, A. Rubino: "Fractal scaling and specimen-size effects on creep resistance", *Strength, Fracture and Complexity*, Vol. 13 (2020), 105-114.
914. A. Carpinteri, G. Niccolini, A. Rubino: "Fractal scaling and crack-size effects on creep crack growth", *Strength, Fracture and Complexity*, Vol. 13 (2020), 131-142.
915. D. Scaramozzino, G. Lacidogna, G. Piana, A. Carpinteri: "Numerical evaluation of protein global vibrations at terahertz frequencies by means of elastic lattice models", *Proceedings*, Vol. 67 (2020), Paper N. 8.
916. A. Carpinteri, G. Lacidogna, D. Scaramozzino: "Geometrically nonlinear behavior of lattice domes coupled with local Eulerian instability", *Curved and Layered Structures*, Vol. 7 (2020), 247-260.
917. A. Carpinteri, O. Borla: "Strong correlation between LENR and nano-mechanics instabilities/THz phonons in condensed matter: Applications in geophysics, geochemistry, energetics, biology", *Infinite Energy*, Issue 153 (2020), 32-37.
918. G. Piana, A. Carpinteri: "On suspension bridge flutter analysis including drag force effects", *Proceedings of the First IABSE Online Symposium*, Wroclaw, Poland, 2020, 820-827.
919. S. Invernizzi, F. Montagnoli, A. Carpinteri: "The collapse of the Morandi's Bridge: Remarks about fatigue and corrosion", *Proceedings of the First IABSE Online Symposium*, Wroclaw, Poland, 2020, 1040-1047.
920. A. Carpinteri, F. Accornero, R. Cafarelli: "Ductile-to-brittle transition in RC and PC beams: Scale effects on minimum and maximum reinforcements", *Proceedings of the FIB Symposium 2020*, Shanghai, China, 2020, 1115-1122.

921. G. Giordani, D. Scaramozzino, I. Iturrioz, G. Lacidogna, A. Carpinteri: "Modal analysis of the lysozyme protein considering all-atom and coarse-grained finite element models", *Applied Sciences*, Vol. 11 (2021), Paper N. 547.
922. F. Accornero, R. Cafarelli, A. Carpinteri: "Cracking and crushing in prestressed concrete beams", *ACI Structural Journal*, Vol. 118 (2021), Paper N. 20-065.
923. F. Accornero, R. Cafarelli, A. Carpinteri: "The Cohesive/Overlapping Crack Model for plain and reinforced concrete beams: Scale effects on cracking and crushing failures", *Magazine of Concrete Research*, Vol. 74 (2021), 433-450.
924. A. Carpinteri, F. Accornero: "Dimensional analysis of critical phenomena: Self-weight failure, turbulence, resonance, fracture", *Physical Mesomechanics*, Vol. 24 (2021), 459-463.
925. F. Accornero, A. Carpinteri: "Funicularity in elastic domes: Coupled effects of shape and thickness", *Curved and Layered Structures*, Vol. 8 (2021), 181-187.
926. A. Carpinteri, F. Accornero, R. Cafarelli: "Scale-dependent maximum reinforcement percentage in RC beams", *FIB Structural Concrete*, Vol. 22 (2021), 2155-2166.
927. S. Invernizzi, F. Montagnoli, A. Carpinteri: "Experimental evidence of specimen-size effects on EN-AW6082 aluminum alloy in VHCF regime", *Applied Sciences*, Vol. 11 (2021), Paper N. 4272.
928. G. Piana, E. Lofrano, A. Carpinteri, G. Ruta: "Effect of local stiffeners and warping constraints on the buckling of symmetric open thin-walled beams with high warping stiffness", *Meccanica*, Vol. 56 (2021), 2083-2102.
929. G. Piana, A. Carpinteri: "Long-span suspension bridge flutter analysis with drag force effects", *Journal of Applied and Computational Mechanics*, Vol. 7 (2021), 1077-1089.
930. G. Nitti, G. Lacidogna, A. Carpinteri: "An analytical formulation to evaluate natural frequencies and mode shapes of high-rise buildings", *Curved and Layered Structures*, Vol. 8 (2021), 307-318.
931. Z. Zhu, J. Li, Y. Huang, A. Carpinteri: "Hot-spot stress models of cutout detail on orthotropic steel bridge decks", *Journal of Constructional Steel Research*, Vol. 183 (2021), Paper N. 106762.
932. D. Scaramozzino, G. Piana, G. Lacidogna, A. Carpinteri: "Low-frequency harmonic perturbations drive protein conformational changes", *International Journal of Molecular Sciences*, Vol. 22 (2021), Paper N. 10501.
933. P.M. Khade, D. Scaramozzino, A. Kumar, G. Lacidogna, A. Carpinteri, R.L. Jernigan: "hdANM: a new comprehensive dynamics model for protein hinges", *Biophysical Journal*, Vol. 120 (2021), 4955-4965.

934. Z. Zhu, J. Li, X. Chen, A. Carpinteri: "Stress behaviors of rib-to-deck double sided weld detail on orthotropic steel deck", *Journal of Constructional Steel Research*, Vol. 187 (2021), Paper N. 106947.
935. F. Accornero, A. Carpinteri: "Ponti ad arco in muratura: Analisi evolutiva del processo di fessurazione", *Archi*, Vol. 5 (2021), 9-11.
936. G. Lacidogna, G. Nitti, D. Scaramozzino, A. Carpinteri: "Diagrid system coupled with shear walls: Analytical investigation on the dynamical response in tall buildings", *Eccomas Proceedia COMPDYN*, 2021, 1793-1802..
937. R. Cafarelli, F. Accornero, A. Carpinteri: "Scale-dependent minimum and maximum reinforcement ratios in RC and PC beams", *Proceedings of the FIB Symposium 2021*, Lisbon, Portugal, 2021, 1588-1597.
938. A. Rubino, F. Accornero, A. Carpinteri: "Post-cracking structural behaviour in FRC beams: Scale effects and minimum fibre volume fraction", *Proceedings of the FIB Symposium 2021*, Lisbon, Portugal, 2021, 622-631.

Year 2022

939. S. Invernizzi, F. Montagnoli, A. Carpinteri: "Very high cycle corrosion fatigue study of the collapsed Polcevera bridge, Italy", *Journal of Bridge Engineering (ASCE)*, Vol. 27 (2022), Paper N. 04021102.
940. F. Montagnoli, S. Invernizzi, A. Carpinteri: "Multi-Fractal Scaling Law applied to VHCF with an emphasis on statistical fluctuations", *Procedia Structural Integrity*, Vol. 42 (2022), 321-327.
941. D. Scaramozzino, B. Albitos, G. Lacidogna, A. Carpinteri: "Selection of the optimal diagrid patterns in tall buildings within a multi-response framework: Application of the desirability function", *Journal of Building Engineering*, Vol. 54 (2022), Paper N. 104645.
942. A. Carpinteri, F. Accornero, R. Cafarelli: "Scale effects in prestressed concrete structures: Maximum reinforcement percentage to avoid brittle crushing", *Engineering Structures*, Vol. 255 (2022), Paper N. 113911.
943. F. Accornero, A. Rubino, A. Carpinteri: "Post-cracking regimes in the flexural behaviour of fibre-reinforced concrete beams", *International Journal of Solids and Structures*, Vol. 248 (2022), Paper N. 111637.
944. F. Accornero, A. Rubino, A. Carpinteri: "Ultra-low cycle fatigue (ULCF) in fibre- reinforced concrete beams", *Theoretical and Applied Fracture Mechanics*, Vol. 120 (2022), Paper N. 103392.

945. F. Accornero, A. Rubino, A. Carpinteri: "A fracture mechanics approach to the design of hybrid-reinforced concrete beams", *Engineering Fracture Mechanics*, Vol. 275 (2022), Paper N. 108821.
946. Z. Song, Y. Li, A. Carpinteri, S. Wang, B. Yang: "Interphase elastic properties of carbon nanotube-epoxy composites and their application in multiscale analysis", *Materials and Design*, Vol. 221 (2022), Paper N. 110996.
947. S. Invernizzi, D. Paolino, F. Montagnoli, A. Tridello, A. Carpinteri: "Comparison between fractal and statistical approaches to model size effects in VHCF", *Metals*, Vol. 12 (2022), Paper N. 1499.
948. M. Mairone, R. Asso, D. Masera, S. Invernizzi, F. Montagnoli, A. Carpinteri: "Fatigue performance analysis of an existing orthotropic steel deck (OSD) bridge", *Infrastructures*, Vol. 7 (2022), Paper N. 135.
949. M. Corrado, G. Ventura, A. Carpinteri: "Experimental evidences of flexural to shear to crushing failure mode transition in reinforced concrete beams without stirrups", *Engineering Structures*, Vol. 271 (2022), Paper N. 114848.
950. R. Cafarelli, F. Accornero, A. Carpinteri: "Cracking and crushing in reinforced and prestressed high-performance concrete T-beams", *Proceedings of the 6th FIB Congress 2022*, Oslo, Norway, 2022, 1660-1669.
951. A. Rubino, F. Accornero, A. Carpinteri: "Fracture mechanics approach to flexural behaviour of hybrid-reinforced concrete (HRC) beams", *Proceedings of the 6th FIB Congress 2022*, Oslo, Norway, 2022, 1670-1679.
952. F. Accornero, R. Cafarelli, A. Carpinteri, A. Nanni: "Scale effects in GFRP-RC beams: A fracture mechanics application", *Proceedings of the 6th FIB Congress 2022*, Oslo, Norway, 2022, 2618-2627.
953. A. Carpinteri, F. Accornero: "Failure of high-performance reinforced concrete: Brittle behaviour and fracture mechanics assessment", in *Comprehensive Structural Integrity*, 2nd Edition, Elsevier, Vol. 2 (2022), 252-270.

Year 2023

954. A. Di Tommaso, G.C. Olivetti, G. Lacidogna, S. Invernizzi, O. Borla, A. Carpinteri: "Garisenda Tower in Bologna (Italy): Health monitoring by different non-destructive testing techniques", *International Journal of Masonry Research and Innovation*, Vol. 9 (2023), 54-66.
955. A. Carpinteri, F. Accornero, A. Rubino: "Scale effects in the post-cracking behaviour of fibre-reinforced concrete beams", *International Journal of*

Fracture, Vol. 240 (2023), 1-16.

956. R. Cafarelli, F. Accornero, A. Carpinteri: “Size-scale effects in high-performance reinforced and prestressed concrete T-beams”, *Structural Concrete (FIB)*, Vol. 24 (2023), 5649-5663.
957. A. Carpinteri, O. Borla, F. Accornero: “Gypsum and quartz specimens in compression failure: Fracto-emissions and related stoichiometric balances”, *Engineering Fracture Mechanics*, Vol. 284 (2023), Paper N. 109202.
958. A. Carpinteri, G. Niccolini, F. Accornero: “Analogy between turbulent-to-vortex shedding flow transition in fluids and ductile-to-brittle failure transition in solids”, *Fluids*, Vol. 8 (2023), Paper N. 114.
959. S. Russo, G. Piana, L. Patruno, A. Carpinteri: “Preliminary flutter stability assessment of the double-deck George Washington Bridge”, *Applied Sciences*, Vol. 13 (2023), Paper N. 6389.
960. F. Montagnoli, S. Invernizzi, A. Carpinteri: “VHCF ultrasonic tests on EN AW-6082 aluminum alloy samples over a wide dimensional range”, *Fatigue and Fracture of Engineering Materials and Structures*, Vol. 46 (2023), 3099–3117.
961. A. Carpinteri, G. Nitti: “Buckling instability of Vlasov thin-walled open-section beams: The Euler–Prandtl coupled problem”, *International Journal of Non-linear Mechanics*, Vol. 154 (2023), Paper N. 104432.
962. A. Carpinteri, O. Borla, A. Manuello: “Hydrogen embrittlement, microcracking, and THz vibrations in the metal electrodes of cold-fusion electrolysis experiments: Repeatability of nuclear and stoichiometric balances”, *Journal of Condensed Matter Nuclear Science*, Vol. 37 (2023), 68-83.
963. A. Carpinteri, O. Borla, U. Lucia, M. Zucchetti: “TeraHertz vibrations and phono-fission reactions from crushing of iron-rich natural rocks”, *Journal of Condensed Matter Nuclear Science*, Vol. 37 (2023), 84-97.
964. F. Accornero, A. Rubino, A. Carpinteri: “A Fracture Mechanics approach to the design of fibre-reinforced and hybrid-reinforced concrete beams”, In: A. Ilki, D. Çavunt, Y.S. Çavunt (Eds), *Building for the Future: Durable, Sustainable, Resilient. FIB Symposium 2023, Lecture Notes in Civil Engineering*, Vol. 349 (2023), 1181-1189.
965. F. Accornero, R. Cafarelli, A. Carpinteri, A. Nanni: “Scale effects in GFRP-bar reinforced concrete beams”, *Structural Concrete (FIB)*, Vol. 24 (2023), 2817-2826.
966. A. Rubino, F. Accornero, A. Carpinteri: “Flexural behaviour and minimum

reinforcement condition in hybrid-reinforced concrete beams”, *Structural Concrete (FIB)*, Vol. 24 (2023), 4767–4778.

- 967. F. Accornero, A. Carpinteri, G. Marano, A. Rubino: “Il calcestruzzo fibro-rinforzato per uso strutturale: Capacità portante ed effetti di scala sulla minima armatura”, *Ingenio* (2023), 23.03.2023, ISSN 2307-8928.
- 968. A. Carpinteri: “Fracture and Complexity”, *Proceedings of the Academy of Athens*, Vol. 98 (2023), 51-67.

Year 2024

- 969. A. Di Tommaso, G.C. Olivetti, G. Lacidogna, S. Invernizzi, A. Carpinteri: Garisenda Tower in Bologna (Italy): Structural assessment and numerical simulation”, *International Journal of Masonry Research and Innovation*, Vol. 9 (2024), 372-383.
- 970. R. Cafarelli, F. Accornero, A. Carpinteri: “Failure-mode scale transitions in RC and PC beams”, *Smart Construction and Sustainable Cities*, Vol. 2 (2024), Paper N. 5.
- 971. F. Accornero, A. Rubino, G. Marano, A. Carpinteri: “Smart construction of fibre-reinforced concrete structures: Size-scale effects on minimum reinforcement and plastic rotation capacity”, *Smart Construction and Sustainable Cities*, Vol. 2 (2024), Paper N. 12.
- 972. Z. Zhu, Z. Jiang, F. Accornero, A. Carpinteri: "Correlation between seismic activity and acoustic emission on the basis of in-situ monitoring", *Natural Hazards and Earth System Sciences*, Vol. 24 (2024), 4133-4143.
- 973. R. Cafarelli, F. Accornero, A. Carpinteri: “Snap-back analysis of fracture evolution in multi-cracked masonry arches”, In: S. Gabriele et al. (Eds.): IWSS 2023, *Lecture Notes in Civil Engineering*, Vol. 437 (2024), 80-87.
- 974. P. Marin, G. Lacidogna, S. Invernizzi, A. Di Tommaso, A. Carpinteri: “Experimental and numerical damage assessment of the Garisenda Tower: Investigation by AE, thermal, seismic, and permanent strain analyses”, *Proceedings of the X International Operational Modal Analysis Conference (IOMAC 2024)*, *Lecture Notes in Civil Engineering*, Vol. 514 (2024), 3-14.
- 975. S. Russo, G. Piana, A. Carpinteri: “Multimodal aeroelastic analysis of suspension bridges with aerostatic nonlinearities”, *Proceedings of the XII International Conference on Structural Dynamics (EURODYN)*, Delft, Netherlands. *Journal of Physics (Conference Series)*, Vol. 2647 (2024), Paper N. 242006.
- 976. A. Carpinteri, G. Lacidogna, A. Mamone: "Il grattacielo di Livorno di Michelucci: Nuovi approcci di analisi strutturale per edifici di grande altezza",

Year 2025

- 977. A. Carpinteri, F. Accornero: "Buckling instability of a von Koch beam", *International Journal of Solids and Structures*, Vol. 318 (2025), Paper N. 113443.
- 978. A. Rubino, F. Accornero, A. Carpinteri: "Fracture mechanics approach to minimum reinforcement design of fibre-reinforced and hybrid-reinforced concrete beams", *International Journal of Damage Mechanics*, (2025), DOI: 10.1177/10567895241245865.
- 979. A. Carpinteri, F. Accornero: "Micro-damage instability mechanisms in composite materials: Cracking coalescence versus fibre ductility and slippage", *International Journal of Damage Mechanics* (2025), DOI: 10.1177/10567895241297313.
- 980. J. Xu, Z. Fan, F. Accornero, D. Wang, A. Carpinteri, J. Cai: "Atomic scale mechanism of bitumen-aggregate interfacial cracking: Insights from molecular dynamics simulation", *Journal of Materials in Civil Engineering (ASCE)*, Vol.37 (2025), Paper N. 04025130.
- 981. S. Russo, G. Piana, A. Carpinteri: "On the simplified calculation of multi-box deck flutter derivatives", *Proceedings of the 16th International Conference on Wind Engineering (ICWE)*, Florence, Italy.
- 982. A. Carpinteri: "High-performance reinforced concrete structures: Brittleness size-scale effects", *Proceedings of the 12th International Conference on Fracture Mechanics of Concrete and Concrete Structures (FraMCoS-XII)*, Vienna, Austria, 2025, DOI: 10.21012/FC12.1296.
- 983. F. Accornero, D. Xie, B. Kumar, A. Carpinteri: "Ductile-to-brittle transition in high-performance prestressed concrete beams: New standards for a safe and effective design", *Proceedings of the 12th International Conference on Fracture Mechanics of Concrete and Concrete Structures (FraMCoS-XII)*, Vienna, Austria, 2025, DOI: 10.21012/FC12.1297.
- 984. F. Accornero, D. Xie, A. Carpinteri: "Ductile-to-brittle transition in GFRP-bar reinforced concrete: Bar-roughness effect on pseudo-plastic rotation capacity", *Proceedings of the 12th International Conference on Fracture Mechanics of Concrete and Concrete Structures (FraMCoS-XII)*, Vienna, Austria, 2025, DOI: 10.21012/FC12.1268.
- 985. B. Kumar, C. Wang, Y. Liu, S. Zhou, Q. Ou, J. Liu, Y. Yu, F. Accornero, A. Carpinteri: "Scale effects investigation on the mechanical behavior of steel-fibre and steel-bar (hybrid) reinforced concrete beams", *Proceedings of the 12th International Conference on Fracture Mechanics of Concrete and Concrete Structures (FraMCoS-XII)*, Vienna, Austria, 2025, DOI: 10.21012/FC12.1132.

986. Y. Yu, H. Chen, F. Accornero, A. Carpinteri: “Implementation of the Cohesive Crack Model with the Finite Particle Method for failure analysis of reinforced concrete beams”, *Proceedings of the 12th International Conference on Fracture Mechanics of Concrete and Concrete Structures (FraMCoS-XII)*, Vienna, Austria, 2025, DOI: 10.21012/FC12.1126.
987. H. Chen, Y. Yu, C. Li, F. Accornero, A. Carpinteri: “Numerical simulations of the transition from flexural cracking to shear to flexural crushing failures in pre-notched reinforced concrete beams”, *Proceedings of the 12th International Conference on Fracture Mechanics of Concrete and Concrete Structures (FraMCoS-XII)*, Vienna, Austria, 2025, DOI: 10.21012/FC12.1127.

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