

List of Publications of Roberto Tempo

Books

- [1] R. Tempo, G. Calafiore and F. Dabbene, *Randomized Algorithms for Analysis and Control of Uncertain Systems*, Springer-Verlag, London, 2005, ISBN 1-85233-524-6.
- [2] M. Milanese, R. Tempo and A. Vicino (Editors), *Robustness in Identification and Control*, Plenum Press, New York, 1989, ISBN 0-306-43251-X.

Journal Publications

- [1] H. Ishii, R. Tempo and E. W. Bai, "A Web Aggregation Approach for Distributed Randomized PageRank Algorithms," *IEEE Transactions on Automatic Control*, 2012 (accepted for publication).
- [2] G. Calafiore, F. Dabbene and R. Tempo, "Research on Probabilistic Methods for Control System Design," *Automatica*, Vol. 47, pp. 1279-1293, 2011.
- [3] E. W. Bai and R. Tempo, "Representation and Identification of Nonparametric Nonlinear Systems of Short Term Memory and Low Degree of Interactions," *Automatica*, Vol. 46, pp. 1595-1603, 2010.
- [4] H. Ishii and R. Tempo, "Distributed Randomized Algorithms for the PageRank Computation," *IEEE Transactions on Automatic Control*, Vol. 55, pp. 1987-2002, 2010.
- [5] T. Alamo, R. Tempo and E. F. Camacho, "A Randomized Strategy for Probabilistic Solutions of Uncertain Feasibility and Optimization Problems," *IEEE Transactions on Automatic Control*, Vol. 54, pp. 2545-2559, 2009.
- [6] L. Lorefice, B. Pralio and R. Tempo, "Randomization-Based Control Design for Mini-UAVs," *Control Engineering Practice*, Vol. 17, pp. 974-983, 2009.
- [7] H. Ishii and R. Tempo, "Computing the PageRank Variation for Fragile Web Data," *SICE Journal of Control, Measurement, and System Integration*, Vol. 2, pp. 1-9, 2009.

- [8] H. Ishii and R. Tempo, "Probabilistic Sorting and Stabilization of Switched Systems," *Automatica*, Vol. 45, pp. 776-782, 2009.
- [9] C. Lagoa, F. Dabbene and R. Tempo, "Hard Bounds on the Probability of Performance with Application to Circuit Analysis," *IEEE Transactions on Circuits and Systems I*, Vol. 55, pp. 3178-3187, 2008.
- [10] Y. Fujisaki, Y. Oishi and R. Tempo, "Mixed Deterministic/Randomized Methods for Fixed Order Controller Design," *IEEE Transactions on Automatic Control*, Vol. 53, pp. 2033-2047, 2008.
- [11] T. Alamo, R. Tempo, D. R. Ramirez and E. F. Camacho, "A New Vertex Result for Robustness Problems with Interval Matrix Uncertainty," *Systems & Control Letters*, Vol. 57, pp. 474-481, 2008.
- [12] R. Tempo and H. Ishii, "Monte Carlo and Las Vegas Randomized Algorithms for Systems and Control: An Introduction," *European Journal of Control*, Vol. 13, pp. 189-203, 2007.
- [13] G. Calafiore, F. Dabbene and R. Tempo, "A Survey of Randomized Algorithms for Control Synthesis and Performance Verification," *Journal of Complexity*, Vol. 23, pp. 301-316, 2007.
- [14] F. Dabbene, B. T. Polyak and R. Tempo, "On the Complete Instability of Interval Polynomials," *Systems & Control Letters*, Vol. 56, pp. 431-438, 2007.
- [15] E. W. Bai, R. Tempo and Y. Liu, "Identification of IIR Nonlinear Systems without Prior Structural Information," *IEEE Transactions on Automatic Control*, Vol. 52, pp. 442-453, 2007.
- [16] T. Alpcan, T. Başar and R. Tempo, "Randomized Algorithms for Stability and Robustness of High-Speed Communication Networks," *IEEE Transactions on Neural Networks*, Vol. 16, pp. 1229-1241, 2005.
- [17] H. Ishii, T. Başar and R. Tempo, "Randomized Algorithms for Synthesis of Switching Rules for Multimodal Systems," *IEEE Transactions on Automatic Control*, Vol. 50, pp. 754-767, 2005.
- [18] D. Liberzon and R. Tempo, "Common Lyapunov Functions and Gradient Algorithms," *IEEE Transactions on Automatic Control*, Vol. 49, pp. 990-994, 2004.
- [19] V. Ugrinovskii, R. Tempo and Y. Fujisaki, "A Primal-Dual Probabilistic Setting for Quadratic Stability of Uncertain Systems," *Systems & Control Letters*, Vol. 52, pp. 39-48, 2004.
- [20] H. Ishii, T. Başar and R. Tempo, "Randomized Algorithms for Quadratic Stability of Quantized Sampled-Data Systems," *Automatica*, Vol. 40, pp. 839-846, 2004.

- [21] Y. Fujisaki, F. Dabbene and R. Tempo, "Probabilistic Robust Design of LPV Control Systems," *Automatica*, Vol. 39, pp. 1323-1337, 2003.
- [22] F. Blanchini, R. Lo Cigno and R. Tempo, "Robust Rate Control for Integrated Services Packet Networks," *IEEE/ACM Transactions on Networking*, Vol. 10, pp. 644-652, 2002.
- [23] E. W. Bai, H. Cho, R. Tempo and Y. Ye, "Optimization with Few Violated Constraints for Linear Bounded Error Parameter Estimation," *IEEE Transactions on Automatic Control*, Vol. 47, pp. 1067-1077, 2002.
- [24] B. T. Polyak and R. Tempo, "Probabilistic Robust Design with Linear Quadratic Regulators," *Systems & Control Letters*, Vol. 43, pp. 343-353, 2001.
- [25] G. Calafiore, F. Dabbene and R. Tempo, "Randomized Algorithms for Probabilistic Robustness with Real and Complex Structured Uncertainty," *IEEE Transactions on Automatic Control*, Vol. 45, pp. 2218-2235, 2000.
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- [27] R. Lopez-Valcarce, S. Dasgupta, R. Tempo and M. Fu, "Stability Conditions for the Time-Varying Linear Predictor," *IEEE Transactions on Signal Processing*, Vol. 48, pp. 1928-1936, 2000.
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Papers Published as Book Chapters

- [1] H. Ishii, R. Tempo and E. W. Bai, “Distributed Randomized PageRank Algorithms over Unreliable Channels,” in *Developments in Control Theory Towards Glocal Control* (L. Qiu, J. Chen, T. Iwasaki and H. Fujioka, Editors), The Institution of Engineering and Technology, London, pp. 147-156, 2012.
- [2] R. Tempo and F. Blanchini, “Robustness Analysis with Real Parametric Uncertainty,” in *The Control Handbook, Second Edition* (W. S. Levine, Editor), Taylor and Francis, London, pp. 7.1-7.18, 2010.
- [3] F. Dabbene and R. Tempo, “Probabilistic and Randomized Tools for Control Design,” in *The Control Handbook, Second Edition* (W. S. Levine, Editor), Taylor and Francis, London, pp. 65.1-65.23, 2010.
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- [5] H. Ishii and R. Tempo, “Distributed PageRank Computation with Link Failures,” in *Perspectives in Mathematical System Theory, Control and Signal Processing* (J. C. Willems, S. Hara, Y. Ohta and H. Fujioka, Editors), Springer-Verlag, London, pp. 139-150, 2010.
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Vision and Discrete-Event Processes (G. Picci and D. S. Gilliam, Editors), Birkhäuser, Basel, pp. 263-282, 1999.

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Refereed Conference Publications

- [1] T. Alamo, A. Luque, D. R. Ramirez and R. Tempo, “Randomized Control Design through Probabilistic Validation,” *Proc. of the American Control Conference*, Montreal, Canada, June 2012 (accepted for publication).
- [2] H. Ishii, R. Tempo and E. W. Bai, “A New Approach for Aggregated PageRank Computation via Distributed Randomized Algorithms,” *Proc. of the IEEE Conference on Decision and Control and European Control Conference*, Orlando, December 2011.
- [3] S. Dasgupta, E. W. Bai and R. Tempo, “Anchored Consensus in Multiagent Systems,” *Proc. of the Chinese Control Conference*, Yantai, China, July 2011.
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- [10] H. Ishii and R. Tempo, “A Distributed Randomized Approach for the PageRank Computation: Part 2,” *Proc. of the IEEE Conference on Decision and Control*, Cancun, Mexico, December 2008.
- [11] A. Tremba, G. Calafiore, F. Dabbene, E. Gryazina, B. T. Polyak, P. S. Shcherbakov and R. Tempo, “RACT: Randomized Algorithms Control Toolbox for MATLAB,” *Proc. of the IFAC World Congress*, Seoul, Korea, July 2008.
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- [15] T. Alamo, R. Tempo and E. F. Camacho, "Improved Sample Size Bounds for Probabilistic Robust Control Design: A Pack-Based Strategy," *Proc. of the IEEE Conference on Decision and Control*, New Orleans, December 2007.
- [16] T. Alamo, R. Tempo, D. R. Ramirez and E. F. Camacho, "A New Vertex Result for Robustness Problems with Interval Matrix Uncertainty," *Proc. of the European Control Conference*, Kos, Greece, July 2007.
- [17] T. Alamo, R. Tempo, D. R. Ramirez and E. F. Camacho, "A Sequentially Optimal Randomized Algorithm for Robust LMI Feasibility Problems," *Proc. of the European Control Conference*, Kos, Greece, July 2007.
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- [37] E. W. Bai, M. Fu, R. Tempo and Y. Ye, “Analytic Center and Maximum Likelihood Estimators,” *Proc. of the IEEE Conference on Decision and Control*, Tampa, December 1998.

- [38] G. Calafiore, F. Dabbene and R. Tempo, "Uniform Sample Generation in ℓ_p Balls for Probabilistic Robustness Analysis," *Proc. of the IEEE Conference on Decision and Control*, Tampa, December 1998.
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