

CV FABIO FAGNANI

Studies and Career:

Fabio Fagnani got his Laurea degree in Mathematics from the University of Pisa and Scuola Normale Superiore of Pisa in 1986. He got the PhD in Mathematics from the University of Groningen in 1991.

He has been Assistant Professor of Mathematical Analysis at the Scuola Normale Superiore during 1991-1998, and in 1997 he held a Visiting Professor position at MIT. Since 1998 he is with the Politecnico of Torino where he is currently (since 2002) Full Professor of Mathematical Analysis.

He acted as the coordinator of the PhD program “Mathematics for Engineering Sciences” at Politecnico di Torino in the period 2006-2012.

Since June 2012, he is the head of the Department of Mathematical Sciences of Politecnico di Torino. During his tenure, the department has been awarded ‘Department of Excellence’ by the Italian Ministry of Education, University and Research for the period 2018-2022. Thanks to this achievement, the department has received funds for 8M euros to be spent in academic positions, infrastructures and high-level education.

Research:

His current research interests are on the broad topic of dynamics and control over networks: opinion dynamics, inferential distributed algorithms, epidemic models, network games and learning dynamics in games, social and economic applications.

He has published over 60 refereed papers on international journals and 50 over peer-reviewed conference proceedings.

He has delivered invited talks in many international workshops and conferences as well as many universities (e.g. MIT, Yale, IMA, EPFL, UCSB, UCSD, CWI, University of Groningen, University of Kyoto).

Recently, he has delivered invited presentations in the following venues:

Democracy and the role of minorities in Markov chain models, Information and Control in Networks, Lund Center for Control of Complex Engineering Systems, October 2012.

Heterogeneity, minorities, and leaders in opinion formation, Kinetic Description of Social Dynamics: From Consensus to Flocking, Ki-Net Conference, University of Maryland, November 2012.

Distributed learning in potential games over large-scale networks, Networking seminar at INRIA Sophia Antipolis, January 2014.

Centrality, influence, consensus, polarization in network models, Mini-course delivered at the Center for Control, Dynamical Systems, and Computation, UCSB, May 2017.

Centrality, consensus, wisdom of crowds in network models, Deliberation, Belief Aggregation, and Epistemic Democracy, Conference at École Normale Supérieure, May 2018.

In 2017, for his outstanding contributions to the field of control and dynamical systems, he was the recipient of the prestigious *Petar Kokotovic distinguished professorship* from the University of California at Santa Barbara (UCSB).

In 2019, he has been awarded with a Leverhulme visiting professorship to visit the Department of Computer Science at Royal Holloway University of London for 8 months in 2019-2020.

In 2020, the paper "Through the Lens of Sequence Submodularity" (authors, S. Bernardini, F. Fagnania and C. Piacentini) has received the Best Paper Honorable Mention award from the International Conference on Automated Planning and Scheduling 2020 (ICAPS '20).

He has been Associate Editor of IEEE Transactions on Network Science and Engineering. He is currently Associate Editor of IEEE Transactions on Automatic Control and IEEE Transactions on Control of Network Systems. He is a member of the international program committee for the events NECSYS.

Teaching and Supervision:

At Politecnico di Torino, he has taught basic and advanced undergraduate and graduate courses on Mathematical Analysis, Discrete Mathematics, Coding and Information Theory and Networks. Since its introduction in 2011, he has delivered the course 'Dynamics over Networks' to students enrolled in last year of the Mathematical Engineering master degree.

He has delivered graduate courses at the Scuola Normale Superiore of Pisa and the University of Padova.

He is member of the scientific committee of "AlfaClass", an excellence program organized by Fondazione CRT in a joint venture with Politecnico di Torino and University of Turin.

In the period 2014-2018 he has supervised 3 PhD theses, 9 Master theses and 12 Bachelor theses. He is currently supervising 2 PhD students and 3 Master students.

In May 2017, he delivered a short course on *Centrality, influence, consensus, polarization in network models* for PhD students and staff at the Center for Control, Dynamical Systems, and Computation of UCSB.

In June 2019, he will deliver lectures and tutorials to the DISC Summer School in the Netherlands "When Game Theory meets Systems and Control".

