



**Prof. Antonia Tulino**

Dip. di Ing. Elettronica e delle Telecomunicazioni

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**CV**

- 1998 Visiting Scholar, Department of Electrical & Computer Engineering, Rice University
- 1999 Research Scientist, Center for Wireless Communications, University of Oulu, Finland.
- 2000 – 2001 Post-doctoral Researcher, Department of Electrical Engineering, Princeton University
- 2001 – 2002 Assistant Professor, Università degli Studi del Sannio
- 2001 – 2009 Visiting Research Fellow, Department of Electrical Engineering, Princeton University
- 2002 – 2017 Associate Professor (with tenure), University of Naples
- 2009 – 2013 Senior Research Scientist, Dep. of Wireless Communication, Bell Labs, Nokia, NJ/USA
- 2013 – 2015 Scientific coordinator of the Network Information Flow group, at Bell Labs, NJ/USA
- Since 2015 Senior Research Scientist, Dep. of Math of Communication, Bell Labs, Nokia, NJ/USA
- Since 2017 Full Professor, University of Naples/Italy

**Research Interest**

Random Matrices, Interface between Estimation and Information Theory, Relaying Communication, Compressed Sensing, Secrecy Capacity for Multimode Fiber, Broadcast Approach for the Sparse-Input Random-Sampled MIMO Gaussian Channel, Fundamental Limits for Caching-Aided Networks, Distributed Cloud Networks

## Awards/ Positions

- IEEE Fellow since 2013
- Awarded with the Chair of Excellence UC3M-Santander Program
- Selected by the National Academy of Engineering for the Frontiers of Engineering program in 2013.
- 2009 Stephen O. Rice Prize
- Best paper award at 37th IEEE Sarnoff Symposium, Newark, New Jersey, USA, Sept. 2016.
- Best paper award at IEEE International Conference on Communications (ICC2016), Kuala Lumpur, Malaysia, 2016.
- Best paper award at 2006 9th International Symposium on Spread Spectrum Techniques and Applications, Brazil, 2006.

## Important Publications

**Google Scholar (4.12.2018): Quotations: 7943; h-Index: 39]**

1. M. Tulino and S. Verdú, "Random Matrices and Wireless Communications", Now Publishers, Netherlands, ISBN: 193301900X, 2004.
2. Lozano, A. M. Tulino and S. Verdú, "Optimum Power Allocation for Parallel Gaussian Channels with Arbitrary Input Distributions," IEEE Transactions on Information Theory 52 (7), 3033-3051, 2006.
3. A. M. Tulino, A. Lozano and S. Verdú, "Impact of Antenna Correlation on the Capacity of Multiantenna Channels," IEEE Transactions on Information Theory, 51 (7), 2491-2509, 2005.
4. H. Huh, A. M. Tulino, and G. Caire, "Network MIMO with Linear Zero-Forcing Beamforming: Large System Analysis, Impact of Channel Estimation and Reduced Complexity Scheduling", IEEE Transactions on Information Theory, 58 (5): 2911-2934, 2012.
5. Ji, A. M. Tulino, J. Llorca, G. Caire, "Order-Optimal Rate of Caching and Coded Multicasting with Random Demands", IEEE Information on Theory, March 2017.