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CURRENT POSITION	Assistant Professor University of California, Irvine Computer Science Dept. Donald Bren School of Information and Computer Sciences Courtesy Appt. in Electrical Engineering and Computer Science Courtesy Appt. California Institute for Information Technologies	July 2013 - Present Irvine, CA
EDUCATION	Post Doctorate Scholar, Electrical Engineering Stanford University University of Southern California Ph.D., Telecommunications Engineering University of Padova Thesis: Ad Hoc Networks with Multiple Simultaneous Access M.E., Telecommunications Engineering University of Ferrara Thesis: Protocol Design for Ad Hoc Networks with Multiple Antenna Systems Final graduation marks: 110/110 summa cum laude B.E., Electronics and Telecommunications Engineering University of Ferrara Thesis: Resource Allocation in Space-Time Division Multiplexing Access Systems Final graduation marks: 110/110 summa cum laude	Jan. 2010 - Dec. 2012 Supervisor: prof. A. Goldsmith Supervisor: prof. U. Mitra Jan. 2006 - Mar. 2009 Padova, Italy Advisor: prof. Michele Zorzi Mar. 2005 Ferrara, Italy Dec. 2002 Ferrara, Italy
PAST APPTS	<ul style="list-style-type: none"> • Jan. 2013 - Aug. 2013: Access post doctorate researcher at KTH (Royal Institute of Technology, Sweden), Automatic Control Lab. • Jan. 2010 - Dec. 2011: post doctorate research fellow at Stanford and the University of Southern California, EE Department. • Apr. 2009 - Jun. 2009: visiting research scholar at the University of Southern California, EE Department. • Jan. 2009 - Dec. 2009: post doctorate researcher at the University of Padova, Italy, Dept. of Information Engineering. • Jan 2008 - Aug. 2008: visiting scholar at the University of Southern California, EE Department. • Jan 2006 - March 2009: Ph.D. student at the School of Information Engineering, University of Padova, Italy. • Apr. 2005 - Dec. 2005: research fellow at the University of Padova, Italy, Dept. of Information Engineering. 	

FUNDING

- **University of California:** UC-Lab Center for Electricity Distribution Cybersecurity, Co-PI (UC-wide faculty and national labs team), USD 3.75M (300K personal), 03/01/18-02/28/21
- **NSF-S&AS:** Cognitive and Reflective Monitoring Systems for Urban Environments, PI: Marco Levorato, Co-PI: Solmaz Kia, USD 500K, 01/01/18-31/12/21
- **NSF-WiFiUS:** IoCT-CARE: Internet of Cognitive Things for Personalized Healthcare, PI: Nikil Dutt, Co-PI: Marco Levorato, USD 300K, 04/01/17-03/31/19
- **NSF-EPCN:** Multi-Scale Analysis and Control of Smart Energy Systems, PI: Marco Levorato, Co-PI: Mohammad al Faruque, USD 260K - 09/01/16-08/31/18
- **University of California Hellman Fellowship:** - The Path Towards Smart Interconnected Communities, PI: Marco Levorato USD 50K, 2016.
- **2015/16 CORCL award:** Academic Senate Council on Research, Computing and Libraries (CORCL) Award - *USD 15K*.
- **2014/15 CORCL award:** Academic Senate Council on Research, Computing, and Libraries (CORCL) Award - *USD 10K*.

AWARDS

- 2012 - Best paper award - IEEE Global Communications Conference (Globecom) 2012, Signal processing symposium.
- 2012 - Winner of the ACCESS Post Doctoral research fellowship at the ACCESS Linnaeus Center, Royal Institute of Technology (KTH), Sweden.
- 2010 - Nominated for the Best Young Researcher Award, Dept. of Information Engineering, University of Padova, Italy.
- 2009 - Nominated for the Best Young Researcher Award, Dept. of Information Engineering, University of Padova, Italy.

PRESS AND MEDIA

- Sophia Stuart, “Inside the DARPA’s Hackfest at the NASA Research Park”, PC Magazine, 2017. [Link to article.](#)

STUDENTS AND VISITORS

- **Current Ph.D Students:** Igor Burago (advanced to candidacy), Sabur Baidya (advanced to candidacy), Delaram Amiri, Davide Callegaro, Peyman Tehrani, Anas Alsoliman, Russel Geschrey (protected veteran).
- **Alumni:** Nadia Ahmed (Graduated in Spring 2017).
- **Past and Current Visiting Scholars:**
Post-Docs: Luca Bedogni (Universita’ degli studi di Bologna, Italy);
Ph.D. Students: Roberto Valentini (Universita’ dell’Aquila, Italy), Anna Valeria Guglielmi (Universita’ degli studi di Padova, Italy);
Undergraduate Students: Adrien Lagrange (ENSTA ParisTech, France), Robin Maillot (ENSTA ParisTech, France), Marie Pied (ENSTA ParisTech, France), Yunsheng Yang (Tsinghua University, Beijing, P. R. China), Kyungjun Cha (Kookmin University, Korea), Daehyun Park (Kookmin University, Korea).
REU undergraduate students: Chris Reina (Virginia tech), Ruoyi Nie (UCI).

PROFESSIONAL SERVICE

- **IEEE International Conference on Smart Computing (SMARTCOMP) 2018:** Publicity chair (America).
- **IEEE International Conference on Acoustic, Speech, and Signal Processing (ICASSP) 2018:** Co-organizer of the special session on Cybersecurity and Privacy.
- **IEEE International Conference on Computing, Networking and Communications (ICNC) 2018:** Chair of the Cognitive Computing and Networking symposium.
- **Asilomar Conference on Signals, Systems, and Computers (Asilomar) 2017:** Organizer of the invited session on Cognitive Networks.
- **IEEE International Conference on Sensing, Communication and Networking (Secon) 2017:** TPC Vice Chair for Submissions.
- **IEEE International Conference on Smart Grid Communications (SmartGridComm) 2017:** Chair of the Smart Metering, Demand Response and Dynamic Pricing symposium.

- **IEEE Wireless Communications and Networking Conference (WCNC) 2017:** Chair of the Machine-to-Machine Communications and the Internet of Things workshop.
- **IEEE International Conference on Computing, Networking and Communications (ICNC) 2017:** Chair of the Cognitive Computing and Networking symposium.
- **ACM Mobicom 2015:** Workshop Co-chair.
- **ACM Mobisys 2015:** Publication Chair.
- **ACM Mobicom 2014:** Co-chair local arrangements.
- **International Conference on Computing, Networking and Communications (ICNC) 2014:** Co-chair Communication QoS and System Modeling symposium.
- **Technical program committee member:** 9th International Workshop on Information Quality and Quality of Service for Pervasive Computing (IQ2S 2018) part of IEEE Percom 2018, Fog World Congress 2017, IEEE Infocom 2016-2018 (main conference), IEEE Infocom 2016 - Workshop on Smart Cities, IEEE Infocom 2015 (Mobile Cloud and Virtualization), IEEE Infocom 2014 (Workshop on Cloud computing), IEEE international Conference on Smart Grid Communications (SGC) 2011-2012-2014-2015-2016, IEEE Global Communications Conference (GlobeCom) 2007-2011-2012-2013-2014-2015-2016, IEEE International Conference on Communications (ICC) 2011-2012-2013-2014-2015-2016-2017, IEEE GlobalSIP - (Machine Learning for Characterization of Cognitive Communications and Radar), IEEE International Workshop on Emerging COgnitive Radio Applications and aLgorithms (IEEE CORAL) 2016, International Conference on Smart Grids and Green IT Systems (SMARTGREENS) 2012-2013-2014, IEEE International Conference on Green Computing and Communications (IEEE GreenCom) 2013, IEEE Consumer Communications and Networking Conference (CCNC) 2011-2013, IEEE International Energy Conference and Exhibition (EnergyCon) 2012, IEEE International Conference on Computing, Networking and Communication (ICNC) 2012, IEEE International Conference on Communications in China 2012, European Wireless 2009.
- **Reviewer:** IEEE Transactions on Smart Grid, IEEE Transactions on Information Theory, IEEE/ACM Transactions on Networking, IEEE Transactions on Communications, IEEE Transactions on Wireless Communications, IEEE/ACM Transactions on Mobile Computing, ACM Transactions on Design Automation of Electronic Systems, IEEE JSAC series on Smart Grid.

UCI SERVICE

- 2016-Present Senate Committee on Courses;
- 2014-2015 Senate Committee on Education Policies (CEP);
- 2014-Present Graduate Student Admission Committee (CS Dept.);
- 2016-Present Lecturer Review Board (CS Dept.);
- 2016 Chair Selection Committee;
- 2015 and 2016: Undergraduate Summer Internship Committee.

BOOKCHAPTERS

- BC1. A. Chowdhery and M. Levorato, Chapter: “Urban IoT Edge Analytics” in *Fog Computing in the Internet of Things (Intelligence at the Edge)*, Springer International Publishing, in press 2018. 101-120.

JOURNAL PAPERS (SUBMITTED)

- J5. S. Baidya and M. Levorato, “Content-Aware Cognitive Interference Control for Urban IoT System”, under revision, *IEEE Trans. on Cognitive Communications and Networking*.
- J4. R. Valentini, M. Levorato and F. Santucci, “Optimal Aging-aware Channel Access and Power Allocation for Battery-Powered Devices with Radio Frequency Energy Harvesting”, under revision, *IEEE Trans. on Wireless Communications*.
- J3. K. Lee, J-P Hong, H. Choi and M. Levorato, “Adaptive Wireless-powered Relaying Protocols with Cooperative Jamming for Two-hop Secure Communication”, under revision, *Internet of*

- J2. K. Vatanparvar, S. Faezi, I. Burago, M. Levorato, and M. Al Faruque, "Extended Range Electric Vehicle with Driving Behavior Estimation in Energy Management", under revision, *IEEE Transactions on Smart Grid*.
- J1. A. Anzanpour, D. Amiri, I. Azimi, A. Rahmani, M. Levorato, P. Liljeberg, N. Dutt, "Edge-Assisted Control for Healthcare Internet-of-Things: A Case Study on PPG-based Early Warning Score", under revision, *Internet of Things Journal*.

JOURNAL PAPERS

- J27. S. Rahimi Moosavi, E. Nigussie, M. Levorato, S. Virtanen, J. Isoaho, "Low-latency Approach for Secure ECG Feature Based Cryptographic Key Generation", *IEEE Access*, 2017.
- J26. I. Azimi, A. Anzanpour, A. M. Rahmani, T. Pahikkala, M. Levorato, P. Liljeberg and N. Dutt, "HiCH: Hierarchical Fog-assisted Computing Architecture for Healthcare IoT", *ACM Transactions on Embedded Computing Systems*, Vol. 16, no. 5s, 174:1-20, 2017.
- J25. N. Ahmed, M. Levorato and G.P. Li, "Residential Consumer-Centric Demand Side Management", *IEEE Trans. on Smart Grid*, to appear, 2017.
- J24. M. Levorato, P. Weeraddana and C. Fischione, "Distributed Optimization of Channel Access Strategies in Reactive Cognitive Networks", *IEEE Trans. on Communications*, vol. 64, no. 10, pp. 4121 - 4133, 2016.
- J23. R. Valentini, M. Levorato and F. Santucci, "Aging Aware Random Channel Access for Battery-Powered Wireless Networks", *IEEE Wireless Comm. Letters*, vol. 5, no. 2, pp. 176 - 179, 2016.
- J22. I. Burago and M. Levorato, "Network Estimation in Cognition-Empowered Wireless Networks", *IEEE Trans. on Cognitive Communications and Networking*, vol. 1, no. 2, pp. 244 - 256, 2015.
- J21. M. Levorato, U. Mitra and A. Ortega, "Graph Compression Techniques for Next Generation Cognitive Networks", *IEEE ComSoc Technical Committee on Cognitive Networks (TCCN) Communications*, special issue on "Cognitive Radio for Heterogeneous Networks", Dec. 2015.
- J20. D. Zois, M. Levorato and U. Mitra, "Active Classification for POMDPs: a Kalman-like State Estimator," *IEEE Trans. on Signal Processing*, vol. 62, no. 23, pp. 6209 - 6224, Dec. 2014.
- J19. N. Michelusi, P. Popovski, O. Simeone, M. Levorato and M. Zorzi, "Cognitive Access Policies under a Primary ARQ process via Forward-Backward Interference Cancellation", *IEEE JSAC - Cognitive Radio Series*, vol. 31, no. 11, pp. 2374 - 2386, Nov. 2013.
- J18. D. Zois, M. Levorato and U. Mitra, "Energy-Efficient, Heterogeneous Sensor Selection for Physical Activity Detection in Wireless Body Area Networks", *IEEE Transactions on Signal Processing*, vol. 61, no. 7, pp. 1581 - 1594, Jul. 2013.
- J17. M. Levorato, U. Mitra and A. Goldsmith, "Structure-Based Learning in Wireless Networks via Sparse Approximation," *EURASIP Journal on Wireless Communications and Networking*, vol. 1, pp. 278, 2012.
- J16. A. Munari, M. Levorato and M. Zorzi, "On the Impact of Carrier Sense Based Medium Access Control on Cooperative Schemes in Wireless Ad Hoc Networks," *IEEE Transactions on Communications*, vol. 60, no. 10, pp. 3032 - 3046, Oct. 2012.
- J15. U. Mitra, A. Emken, S. Lee, M. Li, V. Rozgic, G. Thatté, H. Vathsangam, D. Zois, M. Annavaram, S. Narayanan, D. Spruijt-Metz, G. Sukhatme and M. Levorato, "KNOWME: A Case Study in Wireless Body Area Sensor Network Design", *IEEE Communications Magazine*, vol. 50, no. 5, pp. 116 - 125, 2012.

- J14. F. Librino, M. Levorato and M. Zorzi, "An Algorithmic Solution for Computing Circle Intersection Areas and its Applications to Wireless Communications", *Wireless Communications & Mobile Computing*, Wiley, 2012
- J13. M. Levorato, S. Firouzabadi and A. Goldsmith, "A Learning Framework for Cognitive Interference Networks with Partial and Noisy Observations," *IEEE Transactions on Wireless Communications*, vol. 11, no. 9, pp. 3101- 3111, Sept. 2011.
- J12. M. Levorato, U. Mitra and M. Zorzi, "Cognitive Interference Management in Retransmission-Based Wireless Networks," *IEEE Trans. on Information Theory*, vol. 58, no. 10, pp. 3023 - 3046, May 2012.
- J11. J. Harsini, F. Lahouti, M. Levorato and M. Zorzi, "Analysis of non-Cooperative and Cooperative type II Hybrid ARQ Protocols with AMC over Correlated Fading," *IEEE Trans. on Wireless Communications*, vol. 10, no. 3, pp. 877-889, Mar. 2011.
- J10. M. Levorato, F. Librino and M. Zorzi, "Integrated Cooperative Opportunistic Packet Forwarding and Distributed Error Control in MIMO Ad Hoc Networks," *IEEE Trans. on Communications*, vol. 59, no. 8, pp. 2215-2227, Aug. 2011.
- J9. L. Badia, M. Levorato, F. Librino and M. Zorzi, "Cooperation Techniques for Wireless Systems from a Network-wide Perspective," *IEEE Wireless Comm. Magazine*, vol. 17, n. 2, pp. 89-96, April 2010.
- J8. L. Badia, N. Baldo, M. Levorato and M. Zorzi, "A Markov Framework for Error Control Techniques Based on Selective Retransmission in Video Transmission over Wireless," *IEEE Journal on Selected Areas in Communications*, vol. 28, n. 3, pp. 488-500, April 2010.
- J7. S. Tomasin, M. Levorato and M. Zorzi, "Steady State Analysis of Coded Cooperative Networks with HARQ Protocols," *IEEE Trans. on Communications*, vol. 57, no. 8, pp. 2391-2401, Aug. 2009.
- J6. L. Badia, M. Levorato and M. Zorzi, "A Channel Representation Method for the Study of Hybrid Retransmission-Based Error Control," *IEEE Trans. on Communications*, vol. 57, no. 7, pp. 1959-1971, July 2009.
- J5. M. Levorato and M. Zorzi, "On the performance of Ad Hoc Networks with Multiuser Detection, Rate Control and Hybrid ARQ," *IEEE Trans. on Wireless Communications*, vol. 8, no. 12, pp. 2938-2949, June 2009.
- J4. P. Casari, M. Levorato and M. Zorzi, "MAC/PHY Cross-Layer Design of MIMO Ad Hoc Networks with Layered Multiuser Detection," *IEEE Trans. on Wireless Communications*, vol. 7, no. 11, part 2, pp 4596-4607, Nov. 2008
- J3. M. Levorato, S. Tomasin and M. Zorzi, "Cooperative Spatial Multiplexing for Ad Hoc Networks with Hybrid ARQ: Design and Performance Analysis," *IEEE Trans. on Communications*, vol. 56 no. 9, pp. 1545-1555, Sep. 2008
- J2. L. Badia, M. Levorato and M. Zorzi, "Markov Analysis of Selective Repeat Type II Hybrid ARQ using Block Codes," *IEEE Trans. on Communications*, vol. 56 no. 9, pp. 1434-1441, Sep. 2008.
- J1. M. Levorato, P. Casari, S. Tomasin and M. Zorzi, "Physical Layer Approximations for Cross-Layer Performance Analysis in MIMO-BLAST Ad Hoc Networks," *IEEE Trans. on Wireless Communications*, vol. 6, no. 12, pp. 4390-4400, Dec. 2007.

CONFERENCE
PAPERS

- C66. I. Burago, D. Callegaro, M. Levorato, S. Singh, "Intelligent Data Filtering in Constrained IoT Systems", *Asilomar Conference on Signals, Systems and Computers*, fifty-first Asilomar Conference on Signals, Systems and Computers, CA, Oct. 29-Nov. 1, 2017 (**invited paper**).

- C65. K. Vatanpavar, S. Faezi, I. Burago, M. Levorato, M. Al Faruque, “Driving Behavior Modeling and Estimation for Battery Optimization in Electric Vehicle”, *ACM/IEEE International Conference on Hardware/Software Codesign and System Synthesis (CODES/ISSSO17) part of ESweek*, Seoul, South Korea, 15-20 Oct., 2017.
- C64. I. Burago, M. Levorato, and A. Chowdhery, “Bandwidth-Aware Data Filtering in Edge-Assisted Wireless Sensor Systems”, *IEEE International Conference on Sensing, Communication and Networking (IEEE Secon)*, San Diego, CA, June 12-14, 2017.
- C63. N. Michelusi and M. Levorato, “Energy-Based Adaptive Multiple Access in LPWAN IoT Systems with Energy Harvesting”, *IEEE International Symposium on Information Theory (IEEE ISIT)*, Aachen, Germany, June 25-30, 2017.
- C62. I. Burago, M. Levorato, and S. Singh, “Semantic Compression for Edge-Assisted Systems”, *Information Theory and Applications Workshop (ITA)*, San Diego, CA, Feb. 12-17, 2017 (**invited paper**).
- C61. S. Baidya and M. Levorato, “Edge-assisted Content and Computation Driven Dynamic Network Selection for Real-time Services in Urban IoT”, *SCAN Workshop on Advances in Software Defined and Context-Aware Cognitive Networks*, part of IEEE International Conference on Computer Communications (IEEE Infocom), Atlanta, GA, May 1-4 2017.
- C60. M. Levorato “Cognitive Networking with Dynamic Traffic Classification and QoS Constraints”, *IEEE Wireless Communications and Networking Conference (IEEE WCNC)*, San Francisco, CA, March 19-22, 2017.
- C59. S. Baidya and M. Levorato, “Content-Based Interference Management for Video Transmission in D2D Communications Underlying LTE”, *IEEE International Conference on Computing, Networking and Communications (IEEE ICNC)*, Silicon Valley, CA, Jan. 26-29, 2017.
- C58. S. Baidya and M. Levorato, “Content-Based Cognitive Interference Control for City Monitoring Applications in the Urban IoT”, *IEEE Global Communications Conference (IEEE Globecom)*, Washington, DC, Dec. 4-8, 2016.
- C57. R. Valentini and M. Levorato, “Optimal Aging-Aware Channel Access Control for Wireless Networks with Energy Harvesting”, *IEEE International Symposium on Information Theory (IEEE ISIT)*, Barcelona, Spain, July 10-15, 2016.
- C56. R. Valentini, N. Dang, M. Levorato and E. Bozorgzadeh, “Modeling and Control Battery Aging in Energy Harvesting Systems”, *IEEE International Conference on Smart Grid Communications (SmartGridComm)*, Miami, FL, Nov. 2-5, 2015.
- C55. N. Dang, R. Valentini, E. Bozorgzadeh, M. Levorato and N. Venkatasubramanian, “A Unified Stochastic Model for Energy Management in Solar-Powered Embedded Systems”, *IEEE/ACM International Conference on Computer-Aided Design (ICCAD)*, Austin, TX, Nov. 2-6, 2015.
- C54. R. Valentini, M. Levorato and C. Fischione, “Performance Analysis of IEEE 802.15.3c-Based mmW Wireless Networks”, *the 49th Conference on Information Sciences and Systems (CISS)*, Baltimore, MD, Mar. 18-20, 2015.
- C53. M. Levorato, N. Venkatasubramanian and N. Dutt, “Heat-Aware Transmission Strategies”, *Information Theory and Applications Workshop (ITA)*, San Diego, CA, Feb. 1-6, 2015 (**invited paper**).
- C52. M. Levorato, N. Ahmed and Y. A. Zhang, “Consumer in-the-Loop: Consumers as Part of Residential Smart Energy Systems”, *IEEE International Conference on Smart Grid Communications (IEEE SmartGridComm)*, Venice, Italy, Nov. 3-6, 2014.
- C51. M. Levorato, C. Weeraddana and C. Fischione, “Distributed Optimization of Transmission Strategies in Reactive Cognitive Networks”, *IEEE Global Communications Conference (IEEE GlobeCom)*, Austin, TX, Dec. 8-12, 2014.
- C50. M. Levorato and U. Mitra, “Cognitive Networks with Dynamic User Classification for Tactical Communications”, *Military Communications Conference*, San Diego, CA, Nov. 18-20, 2013.

- C49. M. Levorato, S. Narang, U. Mitra and A. Ortega, "Optimization of Wireless Networks via Graph Interpolation", *IEEE Global Conference on Signal and Information Processing*, Austin, Texas, Dec. 3-5, 2013 (**Invited paper**).
- C48. D. Zois, M. Levorato and U. Mitra, "Non-linear smoothers for discrete-time, finite-state Markov chains", *IEEE International Symposium on Information Theory (ISIT 2013)*, Istanbul, Turkey, July 7-12, 2013.
- C47. D. Zois, M. Levorato and U. Mitra, "Kalman-like State Tracking and Control in POMDPs with Applications to Body Sensing Networks", *IEEE International Conference Acoustic Speech and Signal Processing*, Vancouver, Canada, May 26-31, 2013.
- C46. M. Levorato and U. Mitra, "Scale Invariance and Long-Range Dependence in Smart Energy Grids", *APSIPA Annual Summit Conference*, Hollywood, CA, Dec. 3-6, 2012.
- C45. A. T. Gjika, M. Levorato, A. Ortega and U. Mitra and A. Ortega, "Online Learning in Wireless Networks via Directed Graph Lifting Transform", *50-th Annual Allerton Conference on Communication, Control and Computing*, Oct. 1-5, Monticello, IL, 2012 (**invited paper**).
- C44. M. Levorato, S. Narang, U. Mitra and A. Ortega, "Reduced Dimension Policy Iteration for Wireless Network Control via Multiscale Analysis", **best paper award**, *IEEE Globecom*, Anaheim, CA, Dec. 3-7, 2012.
- C43. M. Levorato and U. Mitra, "Fast Anomaly Detection in Smart Grids via Sparse Approximation Theory", *IEEE Sensor Array and Multichannel Signal Processing Workshop (SAM) - Special Session on Smart Grids*, Stevens Institute of Technology, Hoboken, NJ, 17-20 Jun, 2012 (**Invited paper**).
- C42. D. Zois, M. Levorato and U. Mitra, "Heterogeneous Time-Resource Allocation in Wireless Body Area Networks for Green, Maximum Likelihood Activity Detection", *IEEE ICC 2012*, Ottawa, Canada, Jun. 10-15.
- C41. D. Zois, M. Levorato and U. Mitra, "A POMDP Framework for Heterogeneous Sensor Selection in Wireless Body Area Networks", *IEEE International Conference on Computer Communications (INFOCOM)*, Orlando, FL, Mar. 25-30, 2012.
- C40. M. Levorato, S. Firouzabadi and A. Goldsmith, "A Reinforcement Learning Optimization Framework for Cognitive Interference Networks," *Allerton Conference on Communication, Control and Computing*, Monticello, IL, Sept. 28-30, 2011.
- C39. N. Michelusi, O. Simeone, M. Levorato, P. Popovski and M. Zorzi, "Cognitive Transmissions under a Primary ARQ Process via Backward Interference Cancellation," *Allerton Conference on Communication, Control and Computing*, Monticello, Sept. 28-30, 2011.
- C38. M. Levorato and U. Mitra, "Optimal Allocation of Heterogeneous Smart Grid Traffic to Heterogeneous Networks," *IEEE SmartGridComm* 2011, Oct. 17-20 2011, Brussels, Belgium.
- C37. M. Levorato, S. Firouzabadi and A. Goldsmith, "Cognitive Interference Networks with Partial and Noisy Observations: a Learning Framework," *IEEE Global Communications Conference (GlobeCom)* 2011, Houston, TX, Dec. 5-9 2011.
- C36. N. Michelusi, O. Simeone, M. Levorato, P. Popovski and M. Zorzi, "Optimal Cognitive Transmission Exploiting Redundancy in the Primary ARQ Process," *Information Theory and Applications Workshop (ITA)*, San Diego, CA, Feb. 6-11 2011.
- C35. M. Levorato, D. O'Neill, A. Goldsmith and U. Mitra, "Optimization of ARQ Processes in Interference Networks with QoS Constraints," *IEEE International Conference on Communications (ICC)* 2011, Kyoto, Japan, June 5-9 2011.
- C34. S. Firouzabadi, M. Levorato, D. O'Neill and A. Goldsmith, "Learning Interference Strategies in Cognitive ARQ Networks," *IEEE Global Communications Conference (GlobeCom)* 2010, Miami, FL, Dec. 6-10 2010.

- C33. D. O'Neill, M. Levorato, A. Goldsmith and U. Mitra, "Residential Demand Response Using Reinforcement Learning," *IEEE SmartGridComms* 2010, Oct. 4-6 2010, Gaithersburg, Maryland, USA.
- C32. M. Levorato, L. Badia, U. Mitra and M. Zorzi, "An Analysis of Cognitive Networks for Unslotted Time and Reactive Users," *IEEE International Conference on Mobile Ad-Hoc and Sensor Systems*, San Francisco, CA, USA, Nov. 8-12 2010.
- C31. J. Harsini, F. Lahouti, M. Zorzi and M. Levorato, "A Type II Hybrid ARQ Protocol with Adaptive Modulation and Coding for Time-Correlated Fading Channels: Analysis and Design," *IEEE International Conference on Communications (ICC)*, Cape Town, South Africa, May 23-27 2010.
- C30. M. Levorato, O. Simeone, U. Mitra and M. Zorzi, "Cooperation and Coordination in Cognitive Networks with Packet Retransmission," *IEEE Information Theory Workshop (ITW)* 2009, Taormina, Italy, Oct. 11-16.
- C29. M. Levorato, L. Badia and M. Zorzi, "On the Channel Statistics in Hybrid ARQ Systems for Correlated Channels," *Information Theory Workshop* 2009, Taormina, Italy, Oct. 11-16.
- C28. M. Levorato, U. Mitra and M. Zorzi, "Cognitive Interference Management in Retransmission-Based Wireless Networks," *Allerton Conference on Communication, Control and Computing*, Monticello, IL, Sep. 30 - Oct. 2, 2009.
- C27. M. Levorato, O. Simeone and U. Mitra, "Interference management via rate splitting and HARQ over time-varying fading channels," *ACM Mobicom 2009, Workshop on Cognitive Radio Networks*, Beijing, China, Sep. 20-25, 2009.
- C26. M. Levorato, A. Munari and M. Zorzi, "On the Effectiveness of Cooperation in Carrier Sense-Based Ad Hoc Networks," *IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON)*, Rome, Italy, June 22-26, 2009.
- C25. F. Librino, M. Levorato and M. Zorzi, "An Algorithmic Solution for Computing Circle Intersection Areas and its Applications to Wireless Communications," *IEEE Intl. Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt'09)*, Seoul, Korea, June 23-25, 2009.
- C24. M. Levorato, U. Mitra and M. Zorzi, "On Optimal Control of Wireless Networks with Multiuser Detection, Hybrid ARQ and Distortion Constraints," *IEEE International Conference on Computer Communications (INFOCOM)*, Rio de Janeiro, Brazil, Apr. 19-25, 2009.
- C23. L. Badia, M. Levorato and M. Zorzi, "Analysis of Selective Retransmission Techniques for Differentially Encoded Data," *IEEE International Conference on Communications (ICC)*, Dresden, Germany, June 16-17, 2009.
- C22. F. Librino, M. Levorato and M. Zorzi, "Performance Analysis and Resource Allocation in CDMA Cellular Networks with Relay Stations," *Workshop on Cooperative Mobile Networks (CoCoNet), part of IEEE ICC*, Dresden, Germany, June 16-17, 2009.
- C21. L. Badia, P. Casari, M. Levorato and M. Zorzi, "Analysis of an Automatic Repeat Request Addressing Long Delay Channels," *IEEE International Workshop on underwater Networks (WUnderNET)*, Bradford, UK, May, 26-29, 2009.
- C20. M. Zorzi, F. Librino and M. Levorato, "Cooperation in UMTS Cellular Networks: a Practical Perspective," *IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)*, Cannes, France, 15-18 Sept., 2008 (**invited paper**).
- C19. M. Levorato, L. Badia and M. Zorzi, "Efficient Quantization for Feedback Controlled Networks with type II HARQ," *IEEE Workshop on Resource Allocation in Wireless Networks (Rawnet)*, Berlin, Germany, March 31st, 2008.
- C18. P. Casari, M. Levorato, D. Mazzi and M. Zorzi, "On the Design of Routing Protocols in MIMO Ad Hoc Networks under Uniform and Correlated Traffic", *International Wireless Communications and Mobile Computing Conference (IWCMC)*, Crete Island, Greece, Aug. 6-8, 2008.

- C17. M. Levorato and M. Zorzi, "On Error Control Schemes for Ad Hoc Networks with Multiuser Detection and Rate Control," *42nd Conference on Information Sciences and Systems (CISS)*, Princeton, NJ, March 19-21, 2008.
- C16. M. Levorato and M. Zorzi, "Performance Analysis of Type II Hybrid ARQ with Low-Density Parity-Check Codes," *3rd International Symposium on Communications, Control and Signal Processing (ISCCSP)*, St. Julians, Malta, March 12-14, 2008.
- C15. M. Levorato and M. Zorzi, "Recursive Analysis of Ad Hoc Networks with Packet Queueing, Channel Contention and Hybrid ARQ," *Information Theory and Applications Workshop (ITA 2008)*, UCSD, San Diego, CA, Jan. 27- Feb. 1, 2008.
- C14. F. Librino, M. Levorato and M. Zorzi, "Distributed Cooperative Routing and Hybrid ARQ in MIMO-BLAST Ad Hoc Networks," *IEEE Global Communications Conference (Globecom)*, Washington, DC, November 26-30, 2007
- C13. L. Badia, M. Levorato and M. Zorzi, "An Improved Channel Quantization Method for Performance Evaluation of Incremental Redundancy HARQ Based on Reliable Channel Regions," *Allerton Conference on Communication, Control and Computing*, Monticello, IL, USA, Sept. 26-28, 2007.
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