

Stefano Tomasin

Assistant Professor

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Last updated in April 2012

Short Biography

Stefano Tomasin received the MS (Laurea) and PhD degrees in Telecommunications Engineering from the University of Padova, Italy, in 1999 and 2003, respectively. In 2001-2002 he was visiting Philips Research Laboratory in Eindhoven, the Netherlands, studying mobile receivers for the digital terrestrial television. In 2002 he joined the University of Padova first as a contract researcher for a national research project and then, since 2005, as assistant professor. In the second half of 2004 he was visiting faculty at Qualcomm, San Diego (CA) within a project on multiuser detection for cellular systems. In 2007 he was visiting Polytechnic Institute of New York University, doing research on cooperative networks. His current research interests include signal processing for wireless communications, access technologies for multiuser/multi-antenna systems and cross-layer protocol design and evaluation. He is currently senior member of IEEE since 2011.

Publicly Funded Projects

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| Enhancing communication security by cross-layer physical and data-link (PDX) techniques (ESCAPADE)
<i>Funded by Fund for the investments on basic research (FIRB)</i> | Local coordinator of the project founded by the Italian Ministry of Education and Scientific Research. The project lasts three years (2011-2014), is led by Marco Baldi (Polytechnic University of Marche) and focuses on physical layer security for wireless systems. |
| Integrated Terrestrial And CAble – Receiver Design (ITACA-RD)
<i>Funded by Swiss Commission for Technology and Innovation (CTI)</i> | Collaborating with École Polytechnique Fédérale de Lausanne (Jun. 2011-Jun. 2012) on the project ITACA-RD on development of an integrated receiver for reception of DVB-T2 and DVB-C2 signals. |
| Design and implementation of a novel control and communication architecture for cooperative operation of distributed harmonic and reactive compensators
<i>Funded by University of Padova</i> | Collaborating on the research project on the control and communication architecture for future smart micro-grids (2009-2010). |
| DVB-T2 Advanced Software Platform (DASP)
<i>Funded by Swiss Commission for Technology and Innovation (CTI)</i> | Collaborating with École Polytechnique Fédérale de Lausanne (Feb. 2009-Feb. 2010) on the project on synchronization issues for new generation digital video broadcasting. |

Network of Excellence in Wireless Communications (NEWCOM++)

NEWCOM++ (Network of Excellence in Wireless COMmunications) european project (2006-2009) within FP7, prosecution of the NEWCOM project.

Privately Funded Projects

Fondazione Cariparo, Padova

Receipient (Jan. 2011-Dec. 2013) of a funding for a three-year Ph.D. Sholarship for a study on the Optimization of smart micro grids.

Abilis Systems Sarl

Principal investigator in research contracts on signal processing for digital video broadcasting. (2006-2008).

RAI Research Center

Collaborating on research contracts for new standards on digital video broadcasting (2009-2010).

Industrial and Academic Relations

**Polytechnic University,
Brooklyn, NY**

Visiting faculty (*Sept. 2007–Dec. 2007*). Main research activity: cooperative networks; security in cooperative networks.

**Qualcomm inc.,
San Diego, CA**

Visiting faculty (*June 2004–Dec. 2004*) under the supervision of Dr. Roberto Padovani on multiuser detection for the uplink of cellular systems based on CDMA technology.

**Philips Research Lab.,
Eindhoven, The Netherlands**

Internship during the Ph.D. program (*Oct. 2001 – Jun. 2002*) at Eindhoven (NL) within a project on Doppler compensation for OFDM with application to mobile digital terrestrial television receivers.

**IBM Zurich Research Lab.,
Zurich, Switzerland**

Post-master internship (*Oct. 1999 – Jan. 2000*) on a project for the performance evaluation of error control coding for magnetic recording systems.

Professional Achievements

Teaching experience

- ✓ *Advanced communication techniques*, for graduate students (2011-2012).
- ✓ *Sistemi di Telecomunicazioni (Telecommunication Systems)*, for graduate students (2008-2010).
- ✓ *Key technologies for next generation digital video broadcasting standard*, for Ph.D Students within the Newcom++ network of excellence (2009).
- ✓ *Fondamenti di comunicazioni (Fundamentals of communications)*, for graduate students (2005-2009).
- ✓ *Multicarrier systems*, for doctoral students (2005).
- ✓ *Broadband Wireless Communications*, for the NEWCOM Doctoral School in Wireless Communications (2006).

Memberships

- ✓ Senior Member of the Institute of Electrical and Electronics Engineers (IEEE) since 2011 and member of IEEE since 1999.
- ✓ Member of the European Association for Signal Processing (EURASIP).

Technical Program Committee Activity

- ✓ TPC Chair at IEEE Vehicular Technology Conference 2008-Fall, Transmission Technology Track
- ✓ TPC member for the following conferences:
 - IEEE Vehicular Technology Conference (VTC): 2012-Fall, 2011-Fall, 2009-Fall, 2008-Spring.
 - IEEE WCNC 2012.
 - IEEE Global Conference on Communication (GLOBECOM): 2011, 2009, 2007.
 - International Conference on Advances in Computing and Communications (ACC2011).
 - The Seventh International Symposium on Wireless Communication Systems (ISWCS) (2010).
 - ChinaCom 2008.
 - IEEE International Workshop on Networking Issues in Multimedia Entertainment (NIME): 2006, 2004.

Journal Editor Activity

- ✓ Associate Editor of IEEE Transactions on Vehicular Technologies since Nov. 2011.
- ✓ Associate Editor of EURASIP Journal of Wireless Communications and Networking since 2011.
- ✓ Editor of the ISRN Communications and Networking Journal from 2007 to 2012.
- ✓ Reviewer for various international Journals, including:
 - European Trans. Telecommunications
 - IEEE Commun. Letters
 - IEEE Signal Processing Letters
 - IEEE Trans. on Communications
 - IEEE Trans. on Signal Processing
 - IEEE Trans. on Vehicular Technologies
 - IEEE Trans. on Wireless Communications
 - ISRN Communications and Networking
 - Springer Wireless Networks
 - Elsevier Signal Processing

Awards

- ✓ Exemplary Reviewer Award for IEEE Communications Letters, 2011.
- ✓ Co-author with the recipient of the best student paper award at the Int. Symp. Bioelectronics and Bioinformatics (ISBB2009), Melbourne, Australia, Dec. 2009.
- ✓ Recipient of a reviewer appreciation letter from Alle-Jan van der Veen, editor in chief of IEEE Transactions on Signal Processing., 2008.
- ✓ *Carlo Offelli Award 2005*: awarded best young researcher at the Department of Information Engineering, University of Padova.
- ✓ *Regional Innovation Award 2004*: for the best doctoral thesis.
- ✓ *Carlo Offelli Award 2003*: nominated among the best five young researcher at the Department of Information Engineering, University of Padova.

International Journals

- J1. P. Baracca, N. Laurenti, and S. Tomasin, "Physical layer authentication over MIMO fading wiretap channels," *IEEE Trans. Wireless Commun.*, accepted for publication in Mar. 2012.
- J2. P. Baracca, S. Tomasin, and N. Benvenuto, "A practical scheduling and power/constellation allocation for three relay networks," *EURASIP Journ. Wireless Commun. and Networking*, accepted for publication in Mar. 2012.
- J3. S. Tomasin and M. Butussi, "Low complexity demapping of rotated and cyclic Q delayed constellations for DVB-T2," *IEEE Wireless Commun. Letters*, accepted for publication in Jan. 2012, available on-line DOI: [10.1109/WCL.2012.012012.110260](https://doi.org/10.1109/WCL.2012.012012.110260).
- J4. P. Baracca, S. Tomasin, and N. Benvenuto, "Constellation quantization in constrained backhaul downlink network MIMO," *IEEE Trans. Commun.*, vol. 60, no. 3, pp. 830–839, Mar. 2012.
- J5. M. Rotoloni, S. Tomasin, and L. Vangelista, "Maximum likelihood estimation of time and carrier frequency offset for DVB-T2," *IEEE Trans. Broadcast.*, vol. 58, no. 1, pp. 77–86, Mar. 2012.
- J6. D. Zennaro, S. Tomasin, and L. Vangelista, "Base station selection in uplink macro diversity cellular systems with hybrid ARQ," *IEEE Journ. Select. Areas Commun.*, vol. 29, no. 6, pp. 1249–1259, Jun. 2011.
- J7. S. Tomasin, "Consensus-based detection of malicious nodes in cooperative wireless networks," *IEEE Commun. Letters*, vol. 15, no. 4, pp. 404–406, Apr. 2011.
- J8. K. Bakanoglu, S. Tomasin, and E. Erkip, "Resource allocation for the parallel relay channel with multiple relays," *IEEE Trans. Wireless Commun.*, vol. 10, no. 3, pp. 792–802, Mar. 2011.
- J9. C. Tapparello, M. Rossi, and S. Tomasin, "On optimal cooperators selection policies for multi-hop ad hoc networks," *IEEE Trans. Wireless Commun.*, vol. 10, no. 2, pp. 506–518, Feb. 2011.
- J10. P. Baracca, S. Tomasin, L. Vangelista, N. Benvenuto and A. Morello, "Per sub-block equalization of very long OFDM blocks in mobile communications," *IEEE Trans. Commun.*, vol. 59, no. 2, pp. 363–368, Feb. 2011.
- J11. E. Conte, A. Filippi, and S. Tomasin, "ML period estimation with application to vital sign monitoring," *IEEE Signal Proc. Letters*, vol. 17, no. 11, pp. 905–908, Nov. 2010.
- J12. S. Dehnie and S. Tomasin, "Detection of selfish nodes in networks using CoopMAC protocol with ARQ," *IEEE Trans. Wireless Commun.*, vol. 9, no. 7, pp. 2328–2337, July 2010.
- J13. E. Conte, S. Tomasin, and N. Benvenuto, "A comparison of scheduling strategies for MIMO broadcast channel with limited feedback on OFDM systems," *EURASIP Journal on Wireless Commun. and Networking*, vol. 2010, Article ID 968703, 12 pages, 2010. doi:10.1155/2010/968703.
- J14. E. Conte, S. Tomasin, and N. Benvenuto, "A simplified greedy algorithm for joint scheduling and beamforming in multiuser MIMO OFDM," *IEEE Commun. Letters*, vol. 14, no. 5, pp. 381–383, May 2010.
- J15. S. Tomasin and M. Butussi, "Analysis of interpolated channel estimation for mobile OFDM systems," *IEEE Trans. Commun.*, vol. 58, no. 5, pp. 1578–1588, May 2010.
- J16. M. Rotoloni, S. Tomasin, and L. Vangelista, "On correlation-based synchronization for DVB-T2," *IEEE Commun. Letters*, vol. 14, no. 3, pp. 248–250, Mar. 2010.
- J17. N. Benvenuto, R. Dinis, D. Falconer, and S. Tomasin, "Single carrier modulation with nonlinear frequency domain equalization: an idea whose time has come – again," *Proc. of IEEE*, vol. 98, no. 1, Jan. 2010, pp. 69–96.
- J18. M. Rotoloni, M. Butussi, S. Tomasin, M. Lattuada, and C. Ruppert, "Multiple adaptive frequency filtering for OFDM channel estimation," *IEEE Trans. Broadcast.*, vol. 55, no. 4, pp. 826–830, Dec. 2009.
- J19. L. Vangelista, N. Benvenuto, S. Tomasin, C. Nokes, J. Stott, A. Filippi, M. Vlot, V. Mignone, and A. Morello, "Key technologies for next generation terrestrial digital television standard DVB-T2," *IEEE Commun. Mag.*, vol. 47, no. 10, pp. 146–153, Oct. 2009.
- J20. M. Trivellato, S. Tomasin, and N. Benvenuto, "On channel quantization and feedback strategies for multiuser MIMO-OFDM downlink systems," *IEEE Trans. Commun.*, vol. 57, no. 9, pp. 2645–2654, Sept. 2009.
- J21. A. Vigato, S. Tomasin, L. Vangelista, V. Mignone, N. Benvenuto, and A. Morello, "Coded decision directed demodulation for second generation digital video broadcasting standard," *IEEE Trans. Broadcast.*, vol. 55, no. 3, pp. 607–615, Sept. 2009.

- J22. T. Erseghe and S. Tomasin, "UWB WPAN receiver optimization in the presence of multiuser interference," *IEEE Trans. Commun.*, vol. 57, no. 8, pp. 2369–2379, Aug. 2009.
- J23. S. Tomasin, M. Levorato, and M. Zorzi, "Steady state analysis of coded cooperative networks with HARQ protocol," *IEEE Trans. Commun.*, vol. 57, no. 8, pp. 239–2401, Aug. 2009.
- J24. N. Benvenuto, A. Goliahani, S. Tomasin, and L. Vangelista, "Superimposed sequence vs pilot aided channel estimations for next generation DVB-T systems," *IEEE Trans. Broadcast.*, vol. 55, no. 1, pp. 140–144, Mar. 2009.
- J25. M. Levorato, S. Tomasin, and M. Zorzi, "Cooperative spatial multiplexing for ad hoc networks with hybrid ARQ: system design and performance analysis," *IEEE Trans. Commun.*, vol. 56, no.9, pp.1545–1555, Sept. 2008.
- J26. S. Tomasin, D. Veronesi, and N. Benvenuto, "Cross-layer optimization for multimedia traffic in CDMA cellular networks," *IEEE Trans. Wireless Commun.*, vol. 7, no. 4, pp. 1379–1389, Apr. 2008.
- J27. M. Levorato, S. Tomasin, P. Casari, and M. Zorzi, "Physical layer approximations for cross-layer performance analysis in MIMO-BLAST ad hoc networks," *IEEE Trans. Wireless Commun.*, vol. 6, no. 12, pp. 4390–4400, Dec. 2007.
- J28. S. Tomasin and F. Tosato, "Interference resilient block-spreading CDMA with minimum MAI sequence design," *IEEE Trans. Commun.*, vol. 55, no. 9, pp. 1783–1792, Sept. 2007.
- J29. N. Benvenuto, G. Carnevale, and S. Tomasin, "Joint power control and receiver optimization of CDMA transceivers using successive interference cancelation," *IEEE Trans. Commun.*, vol. 55, no. 3, pp. 563–573, Mar. 2007.
- J30. S. Tomasin and D. Veronesi, "Generalized self spread-spectrum communications with turbo soft despreading and decoding," *Journ. Commun. and Networks*, vol. 8, no. 3, pp. 267–274, Sept. 2006.
- J31. S. Tomasin, "Efficient bidirectional DFE for doubly selective wireless channels," *EURASIP Journ. Applied Signal Proc.*, vol. 2006, Article ID 70572, pp. 1–10, 2006.
- J32. J. Hou, J. E. Smee, H. Pfister, and S. Tomasin, "Implementing interference cancellation to increase the EV-DO RevA reverse link capacity," *IEEE Commun. Mag.*, vol. 44, no. 2, pp. 96–102, Feb. 2006.
- J33. N. Benvenuto and S. Tomasin, "Iterative design and detection of a DFE in the frequency domain," *IEEE Trans. Commun.*, vol. 53, no. 11, pp. 1867–1875, Nov. 2005.
- J34. S. Tomasin and N. Benvenuto, "Frequency-domain interference cancellation and non-linear equalization for CDMA systems," *IEEE Trans. Wireless Commun.*, vol. 4, no. 5, pp. 2329–2339, Sept. 2005.
- J35. S. Tomasin, A. Gorokhov, H. Yang, and J. P. Linnartz, "Iterative interference cancellation and channel estimation for mobile OFDM," *IEEE Trans. Wireless Commun.*, vol. 4, no. 1, pp. 238–245, Jan. 2005.
- J36. N. Benvenuto and S. Tomasin, "Block iterative DFE for single carrier modulation," *IEE Electronics Letters*, vol. 38, no. 19, pp. 1144–1145, Sept. 2002.
- J37. N. Benvenuto, L. Tomba, and S. Tomasin, "Equalization methods in OFDM and FMT systems for broadband communication," *IEEE Trans. Commun.*, vol. 50, no. 9, pp. 1413–1418, Sept. 2002.
- J38. N. Benvenuto, S. Tomasin, "On the comparison between OFDM and single carrier modulation with a DFE using a frequency domain feedforward filter," *IEEE Trans. Commun.*, vol. 50, no. 6, pp. 947–955, June 2002.

International Patents

- P1. A. Morello, S. Tomasin, P. Baracca, L. Vangelista, and N. Benvenuto, "Sub-block equalization in frequency domain for OFDM signals," WO 2011/024118(a2), Mar. 2011.
- P2. M. Butussi and S. Tomasin, "Interpolated channel estimation for mobile OFDM systems," WO 2010/081896, July 2010.
- P3. S. Tomasin, M. Butussi, M. Lattuada, C. A. Ruppert, and Y. Mathys, "Method for channel estimation in OFDM systems," WO 2008/129047, Sept. 2008.
- P4. S. Tomasin, H. D. Pfister, J. Hou, and J. Smee, "Adaptation of transmit subchannel gains in a system with interference cancellation," WO 2006/071760, July 2006. Also published as US 2006/142041.
- P5. J. Hou, H. D. Pfister, J. Smee, and S. Tomasin, "Joint interference cancellation of pilot, overhead and traffic channels," WO 2006/071761, July 2006. Also published as US 2006/141935.
- P6. H. D. Pfister, J. Hou, J. Smee, and S. Tomasin, "Traffic interference cancellation," WO 2006/072086, July 2006. Also published as US 2006/141934.
- P7. J. Smee, H. D. Pfister, J. Hou, and S. Tomasin, "Channel estimation for interference cancellation," WO 2006/072088, July 2006. Also published as US 2006/141933 (A1).

- P8. N. Benvenuto, S. Tomasin, and L. Agarossi, "Frequency-domain decision feedback equalizing device and method," WO 2004/021657, March 2004. US extension: US 2005/259727, Nov. 2005.
- P9. S. Tomasin, N. Benvenuto, F. Osnato, M. Odoni, and F. Spalla, "Frequency-domain multi-user access interference cancellation and nonlinear equalization in CDMA receivers," US 2005/249269, Nov. 2005.
- P10. S. Tomasin and N. Benvenuto, "Filterbank modulation system with pre-equalization," WO 2004/023750, EP 1537708, Mar./June 2005. US extension : US 2005/259755, Nov. 2005.

International Conferences

Invited Conferences / Tutorials

- C1. S. Tomasin "Frequency domain equalization and multiple access: The second childhood of single carrier modulation," *Invited speech, Workshop on Broadband Single Carrier and Frequency Domain Communications, IEEE Global Conf. On Commun. (GLOBECOM)*, Miami (FL), Dec. 2010.
- C2. S. Tomasin and M. Butussi, "DVB-T2: Key Technologies and Implementation Issues", Tutorial presentation at *IEEE Int. Conf. on Commun. (ICC)*, Dresden (Germany), June 2009.
Download it at: <http://dl.comsoc.org/comsocdl/?article=20323121>
- C3. M. Levorato, S. Tomasin, and M. Zorzi, "Recursive analysis of ad hoc networks with packet queuing, channel contention and Hybrid ARQ," in *Proc. 2008 Information Theory and Applications (ITA) Workshop*, San Diego, CA, *invited paper*, Jan. 2008.
- C4. S. Tomasin and N. Benvenuto, "Equalization and multiuser interference cancellation in CDMA systems," in *Proc. Wireless Personal Mobile Commun. Summit (WPMC 2003)*, Yokosuka, Japan, *invited paper*, Oct. 2003.

Conference Presentations

- C5. C. Tapparello, M. Rossi, and S. Tomasin, "Online policies for opportunistic virtual MISO routing in wireless ad hoc networks," in *Proc. Wireless Commun. and Networking Conf. (WCNC)*, Paris, France, Apr. 2012.
- C6. P. Baracca, S. Tomasin, and N. Benvenuto, "Power and time-sharing optimization for three half-duplex relay networks," in *Proc. Asian Himalayas Int. Conf. on Internet (AH-ICI2011)*, Kathmundu, Nepal, Nov. 2011.
- C7. A. Costabeber, P. Tenti, T. Erseghe, S. Tomasin, and P. Mattavelli, "Distributed control of smart microgrids by dynamic grid mapping," in *Proc. IEEE Industrial Electronics Conf. (IECON)*, Melbourne, Australia, Nov. 2011.
- C8. T. Erseghe, F. Lorenzon, S. Tomasin, A. Costabeber and P. Tenti, "Distance measurement over PLC for dynamic grid mapping of smart micro grids," in *Proc. IEEE SmartGridComm 2011*, Bruxelles, Belgium, Oct. 2011.
- C9. A. Costabeber, T. Erseghe, P. Tenti, and S. Tomasin, "Optimization of micro-grid operation by dynamic grid mapping and token ring control," in *Proc. 14th European Conf. on Power Electronics and Applications (EPE)*, Birmingham, United Kingdom, Aug. 2011.
- C10. P. Baracca, S. Tomasin, and N. Benvenuto, "Downlink multicell processing employing QAM quantization under a constrained backhaul," in *Proc. IEEE Int. Workshop Signal Proc. Advances in Wireless Commun. (SPAWC)*, San Francisco (CA), Jun. 2011.
- C11. P. Baracca, N. Laurenti, and S. Tomasin, "Physical layer authentication over an OFDM fading wiretap channel," in *Proc. 1st Int. ICST Workshop on Secure Wireless Networks (SECURENETS 2011)*, Paris, France, May 2011.
- C12. S. Tomasin and T. Erseghe, "Constrained optimization of local sources generation in smart grids by SDP approximation," in *Proc. 15th IEEE Int. Symp. on Power Line Commun. and its Applications (ISPLC)*, Udine, Italy, Apr. 2011.
- C13. P. Baracca, S. Tomasin, and N. Benvenuto, "Equalization of OFDM for doubly very selective channels," in *Proc. Int. Conf. Commun. Tech.*, Nanjing, China, Nov. 2010.
- C14. P. Baracca, S. Tomasin, and N. Benvenuto, "Optimization of base station coordination and power allocation in cellular networks downlink," in *Proc. Int. Conf. Commun. Tech.*, Nanjing, China, Nov. 2010.

- C15.C. Tapparello, M. Rossi, and S. Tomasin, "On interference-aware cooperation policies for wireless ad hoc networks", in *Proc. Int. Conf. Universal Mobile Telecommun.*, Moscow, Russia, Oct. 2010.
- C16.D. Forner, T. Erseghe, S. Tomasin, and P. Tenti, "On efficient use of local sources in smart grids with power quality constraints," in *Proc. IEEE SmartGridComm 2010*, Gaithersburg, Maryland, Oct. 2010.
- C17.D. Zennaro, S. Tomasin, and L. Vangelista, "Uplink cell selection for cooperative multi-cell networks with hybrid ARQ," in *Proc. IEEE Global Conf. On Commun. (GLOBECOM)*, Miami, Florida, Dec. 2010.
- C18.E. Conte, A. Filippi, and S. Tomasin, "Heart rate estimation using ultra wide band pulse radar," in *Proc. IASTED Int. Conf. on Biomedical Engineering (BioMed)*, Innsbruck, Austria, Feb. 2010.
- C19.E. Conte, A. Filippi, and S. Tomasin, "On the modulation of ultra wide band pulse radar signal by target vital signs," in *Proc. Int. Symp. Bioelectronics and Bioinformatics (ISBB2009)*, Melbourne, Australia, Dec. 2009 (best student paper award to E. Conte).
- C20.P. Baracca, S. Tomasin, L. Vangelista, N. Benvenuto and A. Morello, "Per sub-block equalization and channel estimation for next generation handheld DVB," in *Proc. Int. Conf. Untra Modern Telecom. (ICUMT)*, St. Petersburg (Russia), Sept. 2009.
- C21.A. Vigato, N. Benvenuto, S. Tomasin, and L. Vangelista, "On hard and soft detection of space-time block codes by a novel soft output sphere decoder," in *Proc. Int. Conf. Untra Modern Telecom. (ICUMT)*, St. Petersburg (Russia), Sept. 2009.
- C22.S. Dehnie and S. Tomasin, "Selfish misbehavior detection in CSMA cooperative networks with HARQ," in *Proc. IEEE Int. Conf. Wireless and Mobile Comp., Net. and Commun. (WiMob 2009)*, Marrakech (Morocco), Oct. 2009.
- C23.S. Dehnie, S. Tomasin, and R. Ghandan, "Sequential detection of misbehaving nodes in cooperative networks with HARQ," in *Proc. IEEE Military Commmun. Conf. (MILCOM)*, Boston (MA), Oct. 2009.
- C24.M. Rotoloni, M. Butussi, S. Tomasin, M. Lattuada, and C. Ruppert, "Multiple adaptive frequency filtering for OFDM channel estimation," in *Proc. IEEE Int. Workshop Signal Proc. Advances in Wireless Commun. (SPAWC)*, Perugia, Italy, June 2009.
- C25.S. Tomasin and M. Butussi, "Improved channel duration estimate for mobile OFDM systems", in *Proc. IEEE Int. Workshop Signal Proc. Advances in Wireless Commun. (SPAWC)*, Perugia, Italy, June 2009.
- C26.K. Bakanoglu, E. Erkip, and S. Tomasin, "Resource allocation for the parallel relay channel with multiple relays," in *Proc. Asilomar Conf. Signals, Systems and Computers*, Pacific Grove, CA, Oct. 2008.
- C27.M. Trivellato, S. Tomasin, and N. Benvenuto, "Channel quantization and feedback optimization in multiuser MIMO-OFDM downlink systems," in *Proc. IEEE Global Conf. On Commun. (GLOBECOM)*, New Orleans, LA, Nov. 2008.
- C28.E. Conte, S. Tomasin, and N. Benvenuto, "Scheduling strategies for multiuser MIMO OFDM systems with limited feedback," in *Proc. Personal Indoor Mobile Radio Commun. (PIMRC)*, Cannes, France, Sept. 2008.
- C29.S. Dehnie and S. Tomasin, "Detection of selfish partners by control packets in ARQ-based CSMA cooperative networks," in *Proc. Int. Symp. Spread Spectrum Tech. and Applications (ISSTA)*, Bologna, Italy, Aug. 2008.
- C30.A. Vigato, S. Tomasin, L. Vangelista, N. Benvenuto, and V. Mignone, "Soft detection of modulation diversity schemes for next generation digital terrestrial television," in *Proc. Int. Symp. Spread Spectrum Tech. and Applications (ISSTA)*, Bologna (Italy), Aug. 2008.
- C31.T. Erseghe and S. Tomasin, "Optimized demodulation for MAI resilient UWB W-PAN receivers," in *Proc. IEEE Int. Conf. on Commun. (ICC)*, Beijing, China, June 2008.
- C32.N. Benvenuto, A. Goljahani, S. Tomasin and L. Vangelista, "Superimposed sequence channel estimation and pilot aided channel estimation: a throughput comparison," in *Proc. 10th Int. Symp. on Wireless Personal Multimedia Commun. (WPMC)*, Jaipur, India, Dec. 2007.
- C33.N. Benvenuto, E. Conte, S. Tomasin, and M. Trivellato, "Predictive channel quantization and beamformer design for MIMO-BC with limited feedback," in *Proc. Global Conf. On Commun. (GLEBECOM)*, Washington, D.C., Nov. 2007.
- C34.N. Benvenuto, E. Conte, S. Tomasin, and M. Trivellato, "Low-rate predictive feedback for the OFDM MIMO broadcast channel," in *Proc. Tyrrhenian Workshop on Digital Commun. 2007 (TIWDC 2007)*, Ischia island, Naples, Italy, Sept. 2007.
- C35.N. Benvenuto, E. Conte, S. Tomasin, and M. Trivellato, "Low-rate feedback and channel quantization for the MIMO broadcast channel," in *Proc. IEEE Africon'07*, Windhoek, Namibia, Sept. 2007.

- C36. S. Tomasin, M. Levorato, and M. Zorzi, "Analysis of outage probability for cooperative networks with HARQ," in *Proc. Int. Symp. On Information Theory (ISIT) 2007*, Nice, France, June 2007.
- C37. M. Levorato, S. Tomasin, and M. Zorzi "Strategies and tradeoffs for coded cooperation in wireless networks" in *Proc. Workshop on Wireless Networks, Commun. Cooperation and Competition (WNC3) 2007*, Limassol, Cyprus, Apr. 2007.
- C38. M. Levorato, S. Tomasin, and M. Zorzi, "Coded cooperation for ad hoc networks with spatial multiplexing," in *Proc. IEEE Int. Conf. on Commun. (ICC) 2007*, Glasgow, Scotland, June 2007.
- C39. N. Benvenuto, S. Tomasin, and D. Veronesi, "Multiple frequency offsets estimation and compensation for cooperative networks," in *Proc. IEEE Wireless Commun. and Networking Conf. (WCNC)*, Hong-Kong, China, Mar. 2007.
- C40. S. Tomasin, M. Levorato, and M. Zorzi, "Analysis of cooperative spatial multiplexing for ad hoc networks with adaptive hybrid ARQ," in *Proc. IEEE Vehic. Tech. Conf. (VTC) fall*, Montreal, Canada, Sept. 2006.
- C41. N. Benvenuto, G. Carnevale, and S. Tomasin, "MC-CDMA with SIC: power control by discrete stochastic approximation and comparison with OFDMA," in *Proc. IEEE Int. Conf. on Commun. (ICC)*, Istanbul, Turkey, June 2006.
- C42. M. Levorato, S. Tomasin, P. Casari, and M. Zorzi, "An approximate approach for layered space-time multiuser detection performance and its application to MIMO ad hoc networks," in *Proc. IEEE Int. Conf. on Commun. (ICC)*, Istanbul, Turkey, June 2006.
- C43. M. Levorato, S. Tomasin, P. Casari, and M. Zorzi, "Analysis of spatial multiplexing for cross-layer design of MIMO ad-hoc networks," in *Proc. IEEE Vehic. Tech. Conf. (VTC) spring*, Melbourne, Australia, May 2006.
- C44. N. Benvenuto, G. Carnevale, and S. Tomasin, "Optimization of SIC receiver and CDMA power control by discrete stochastic approximation," in *Proc. Int. Conf. on Information, Commun. and Signal Proc.*, Bangkok, Thailand, Dec. 2005.
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