

Stefano Tomasin

curriculum vitae

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Short Biography

Stefano Tomasin was born in Venice (July 26, 1975), received the Laurea degree and the Ph.D. degree in Telecommunications Engineering from the University of Padova, Italy, in 1999 and 2003, respectively. In the Academic year 1999-2000 he was on leave at the IBM Research Laboratory, Zurich, Switzerland, doing research on signal processing for magnetic recording systems. In the Academic year 2001-2002 he was on leave at Philips Research, Eindhoven, the Netherlands, studying multicarrier transmission for mobile applications. He joined University of Padova first as contractor researcher for a national research project (2002), then as Assistant Professor (2005), and since 2016 he is Associate Professor. In the second half of 2004 he was visiting faculty at Qualcomm, San Diego (CA) doing research on mobile cellular systems. In 2007 he has been visiting Polytechnic University in Brooklyn, NY, working with prof. Elza Erkip on cooperative networks. From December 2014 to December 2015, he has been on a sabbatical leave at the Mathematical and Algorithmic Sciences Laboratory, France Research Center of Huawei Technologies, in Boulogne-Billancourt, France. His current research interests include physical layer security, signal processing for wireless communications, optimization techniques for smart grids, synchronization, scheduling of communication resources. He is senior member of IEEE since 2011 and member of IEEE since 1999. Since 2011 he is Editor of both IEEE Transactions of Vehicular Technologies and EURASIP Journal of Wireless Communications and Networking.

Education

July 6, 1999: Laurea degree
Telecommunication Engineering

5-year University degree obtained summa cum laude by University of Padova, Italy. Thesis title: "Metodi di equalizzazione per sistemi OFDM" (Equalization methods for OFDM systems). Supervisor: Prof. Nevio Benvenuto.

February 14, 2003: Ph. D. degree
Telecommunication Engineering

Doctoral degree obtained at University of Padova, Italy. Thesis title: "Frequency domain equalization and channel estimation for broadband wireless communications". Supervisor: Prof. Nevio Benvenuto.

Qualifications

December 12, 2013: Italian Professor Qualification

Abilitazione scientifica nazionale for the position of Associate Professor in Telecommunications (settore concorsuale 09/F2).

2000 (2nd session): Qualification for the Engineer Board

Dr. Tomasin passed the *Esame di stato per l'abilitazione alla professione di ingegnere*.

Current Position

University of Padova, Italy

Associate Professor since January 15, 2016 at the Department of Information Engineering (DEI) of University of Padova.

Other Positions

University of Padova, Italy

Assistant Professor (Jan. 2005-Jan. 2016) at the Department of Information Engineering (DEI) of University of Padova.

**Huawei Technologies,
Boulogne-Billancourt France**

Sabbatical leave (Dec. 2014-Dec 2015) at the Mathematical and Algorithmic Sciences Laboratory, France Research Center of Huawei Technologies working on 5G technologies.

**Polytechnic University,
Brooklyn, NY**

Visiting faculty (Sept. 2007–Dec. 2007), guest of Prof. Elza Erkip. Main research activity: cooperative networks and 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.

**University of Padova,
Padova, Italy**

Post-doc contract with the FIRB "PRIMO" (Reconfigurable Platforms for wideband wireless communications) Italian university ministry (Jan. 2003 – Dec. 2004).

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

Internship during the Ph.D. program (Oct. 2001 – Jun. 2002) at Eindhoven (NL) guest of Dr. Jean-Paul Linnartz, 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) under the supervision of Dr. Evangelos Eleftheriou on a project for the performance evaluation of error control coding in magnetic recording systems.

Language Skills

English

Certificated B2 level. Extended time spent abroad (3 months in Zürich, 9 months in Eindhoven, 6 months in San Diego, and 3 months in New York), frequent international contacts, and courses taught in English ensure full control of this language.

Italian

Mother language.

Awards

Reviewer Awards

- Exemplary Reviewer Award from IEEE Communications Letters, 2011.
- Reviewer appreciation award from the IEEE Transactions on Signal Processing, 2008.

Best Paper Awards

Co-author of the best student paper award at the Int. Symp. Bioelectronics and Bioinformatics (ISBB2009), Melbourne, Australia, Dec. 2009.

Other Awards

- Carlo Offelli Award 2005: awarded best young researcher at the Department of Information Engineering, University of Padova.
- Regional Innovation Award 2004: awarded for the best doctoral thesis by the Veneto Region.
- Carlo Offelli Award 2003: nominated among the best five young researcher at the Department of Information Engineering, University of Padova.

Editorial Activity

Guest Editorial Activity

Guest Editor of the Special issue on Physical Layer Security and its Applications, 2015, Proceedings of IEEE, Oct. 2015.

Journal Editorial Activity

- **Associate Editor** of IEEE Transactions on Signal Processing since Jan. 2017.
- **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
 - IEEE Trans. on Control Systems Technology
 - IEEE Trans. Information Forensics and Security
 - ISRN Communications and Networking
 - Springer Wireless Networks
 - Elsevier Signal Processing

Conference TPC Chair

- Organizer of the IEEE Workshop on Wireless Physical Layer Security (WPLS) at the IEEE International Conference on Communications June 2015, London, UK;
- Organizer of Workshop on Communication Security (WCS 2014) within the ESCAPADE project, Sept. 2014, Ancona, Italy;
- TPC Chair IEEE Vehicular Technology Conference 2008-Fall, Transmission Technology Track

Conference TPC Member

- IEEE International Conference on Communications (ICC): 2017-2014.
- IEEE Global Conference on Communication (GLOBECOM): 2016-2013, 2011, 2009, 2007.
- IEEE CNS Workshop on Physical-layer Methods for Wireless Security: 2016.
- IEEE Vehicular Technology Conference (VTC): 2015-Spring, 2013-Fall, 2012-Fall, 2012-Spring, 2011-Fall, 2011-Spring, 2010-Fall, 2010-Spring, 2009-Fall, 2009-Spring, 2008-Fall, 2008-Spring, 2006-Spring.
- IEEE WiComSec-Phy 2015 - Workshop on Wireless Communication Security at the Physical Layer (jointly with Mobiquitous'15).
- IEEE WCNC 2017-2014, 2012, 2009.
- ACM Q2SWinet 2014.
- ChinaCom 2008.
- IEEE International Workshop on Networking Issues in Multimedia Entertainment (NIME): 2006, 2004.
- IEEE SmartGridComm 2017, 2015, 2014.
- International Conference on Advances in Computing and Communications (ACC2011).
- International Symposium on Wireless Communications Systems (ISWCS): 2014, 2013, 2010.
- IEEE International Conference on Communication, Networks and Satellite (IEEE COMNETSAT): 2016.

Publicly Funded Projects

Project Title	Description
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>	Role: Local coordinator Project founded by the Italian Ministry of Education and Scientific Research (MIUR), under the scheme <i>FIRB- Futuro in Ricerca</i> . The project lasts three years (March 8, 2012-March 7, 2015), is led by Dr. Marco Baldi (Polytechnic University of Marche) and focuses on physical layer security for wireless systems. The project has been one of the 99 selected for funding out of 2416 submitted (4% of acceptance).
Integrated Terrestrial And CABLE – Receiver Design (ITACA-RD) <i>Funded by Swiss Commission for Technology and Innovation (CTI)</i>	Role: Collaborator Collaborating with École Polytechnique Fédérale de Lausanne (EPFL) (Jun. 2011-Jun. 2012) on the Integrated Terrestrial And CABLE Receiver Design (ITACA-RD) project on the development of an integrated DVB-T2 and DVB-C2 receiver.
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>	Role: Collaborator 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>	Role: Collaborator Collaborating with École Polytechnique Fédérale de Lausanne (EPFL) (Feb. 2009-Feb. 2010) on the DVBT2 advanced software platform (DASP) project for synchronization of the new generation digital video broadcasting systems.
Network of Excellence in Wireless Communications (NEWCOM++) <i>Funded by FP7 Europe</i>	Role: Collaborator NEWCOM++ (Network of Excellence in Wireless COMMunications) European project (2006-2009) within FP7, prosecution of the NEWCOM project.

Privately Funded Projects

Funding Entity	Description
Huawei (China)	Role: Project Leader HIRPO Project (2017) on feedback design for cellular systems.
Huawei (Italy)	Role: Project Leader Projects (2017) on beamforming and scheduling for mm-wave systems.
European Space Agency (The Netherlands)	Role: Collaborator Project (2016-18) on security for satellite navigation systems.
Institute for Information Industry (III) (Taiwan)	Role: Project Leader Project (2013) on demand-response techniques for smart micro grids with simulation test-bed.
Luce in Veneto (Italy)	Role: Collaborator E-light project (2011-2012) on ICT for illumination. Funded by Consorzio Luce in Veneto within Regione Veneto funded research projects.

Fondazione Cariparo, Padova (Italy)**Role: Project Leader**

Recipient (Jan. 2012-Dec. 2014) of a funding for a three-year Ph.D. scholarship for a study on the optimization of smart micro grids.

Abilis Systems Sarl (Switzerland)**Role: Project Leader**

Three research contracts (2006-2008) on signal processing for digital video broadcasting. These contracts brought also to joint scientific publications and patents.

RAI Research Center (Italy)**Role: Collaborator**

Research contracts for new standards on digital video broadcasting (2007-2013), obtaining contribution to the standard activity, joint scientific publications and patents.

Professional Achievements

Representation Activity

- Member of the executive board of the School of Engineering (U. of Padova), from 2009 to 2011.
- Representative of the Department of Information Engineering within the Tutoring Commission (Commissione Tutorato) of the School of Engineering (U. of Padova), since 2013.
- Representative of the Department of Information Engineering within the Perspective Student Commission (Commissione Orientamento) of the School of Engineering (U. of Padova), since 2013.
- Representative of the Department of Information Engineering within the Commission for Relation with the Engineering Association (U. of Padova) since 2013.

Engineering Association 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).

Teaching Experience

Analisi dei Dati (Data Analysis)

Bachelor course - *Ing. Informazione*
Academic Year 2015-2016.
Hours: 72. Language: Italian

Topics: Probability theory. Random variables and vectors. Stochastic processes.
Large class with about 100 students.

Advanced Communication Techniques

Master course - *Ing. Telecomunicazioni*
Academic Years 2011-2012, 2012-2013.
Hours: 48. Language: English

Topics: OFDM, synchronization for OFDM, peak to average power ratio reduction, channel estimation, MIMO systems, capacity of MIMO, MIMO spatial multiplexing, space time coding.
Small class with less than 10 students. **In the academic year 2011-2012 and 2012-2013, Dr. Tomasin has been Professore Aggregato for this course.**

Fondamenti di Comunicazioni (Communication Engineering Fundamentals)

Bachelor course - *Ing. Informatica*
Academic Years 2005-2006, 2006-2007, 2007-2008, 2008-2009.
Hours: 54. Language: Italian

Topics: principles of communication; transmission channels; analog and digital modulation principles; uniform and non uniform quantization. **In the academic years 2006-2007 and 2007-2008 Dr. Tomasin has been Professore Aggregato for this course.**
Large classes with about 100 students.

Fondamenti di Comunicazioni (Communication Engineering Fundamentals)

Bachelor course *Ing. dell'Informazione*
Academic Years 2008-2009.
Hours: 72. Language: Italian

Topics: principles of communication; transmission channels; analog and digital modulation principles; uniform and non uniform quantization and basics of information theory. **In the academic year 2008-2009 Dr. Tomasin has been Professore Aggregato for this course.**
Large classes with about 100 students.

Fondamenti di Comunicazioni (Communication Engineering Fundamentals)

Bachelor course *Ing. Informatica*
Academic Years 2013-2014.
Hours: 72. Language: Italian

Topics: principles of communication; transmission channels; analog and digital modulation principles; uniform and non uniform quantization. **In the academic year 2013-2014 Dr. Tomasin has been Professore Aggregato for this course.**
Large classes with about 100 students.

Sistemi di Telecomunicazioni (Telecommunication Systems)

Master course
Academic Years 2008-2009, 2009-2010.
Hours: 48. Language: Italian

Topics: principles of communication; transmission channels; analog modulation (SSB, DSB, FM); digital modulation, principles with signal and detection theory, examples (QAM, PSK, orthogonal, PAM); uniform and non uniform quantization, powerline communications.
Small class with less than 10 students.

Telecomunicazioni (Communication Systems)

Bachelor course *Ing. dell'Informazione*
Academic Years 2014-2015.
Hours: 72. Language: Italian

Topics: principles of communications; digital modulation systems; quantization; elements of information theory and Shannon theorems; channel coding; queuing theory; elements of network layer techniques. **In the academic year 2014-2015 Dr. Tomasin has been Professore Aggregato for this course.**
Large classes with about 100 students.

Key Technologies for Next Generation Digital Video Broadcasting Standard

Ph.D. course within the Newcom++ network of excellence
Year: 2009.
Hours: 20. Language: English.

Motivations of DVB-T2. Description of key technologies behind DVB-T2, including the LDPC/BCH forward error correction scheme, transmission scheduling, orthogonal frequency-division multiplexing with huge block size, multiple-antenna transmissions, and synchronization techniques. Comparison with the current DVB-T standard.
Small class with less than 10 students.

Broadband Wireless Communications

Ph.D. course within the NEWCOM (European network) Doctoral School in Wireless Communications
Year: 2006.
Hours: 20. Language: English.

Communications over broadband channels. Principles and design of multicarrier systems. Synchronization, Equalizations, Impairment. Implementation architectures.
Small class with less than 10 students.

Multicarrier Systems

Ph.D. course

Year: 2005

Hours: 20. Language: English.

Principles and design of multicarrier systems. Synchronization, Equalizations, Impairment. Implementation architectures. Small class with less than 10 students.

Doctoral Student Supervision

- **Ermanna Conte**, Ph.D. in 2010 at University of Padova, Italy, with thesis entitled "Multiuser MIMO downlink systems with limited feedback and remote sensing of vital signs".
- **Sintayehu Dehnie**, Ph.D. in 2009 at NYU Polytechnic University, NY, with thesis entitled "Detection and mitigation of misbehavior in cooperative wireless communications".

Bibliometric Indices

Google scholar: h-index 23 (total citations 2738)

Scopus: h-index 16 (total citations 1599)

ISI Web of Knowledge: h-index 13 (total citations 1065)

Publications

Entries in boldface refer to invited papers.

Accepted For Publication

- [A1] A. Brighente and S. Tomasin, "Beamforming and scheduling for mmwave downlink sparse virtual channels with non-orthogonal and orthogonal multiple access," *Proc. IEEE Int. Vehic. Tech. Conf.*, 2017.
- [A2] A. Brighente and S. Tomasin, "Centralized and distributed sparsification for low-complexity message passing algorithm in C-RAN architectures," *Proc. IEEE Int. Vehic. Tech. Conf.*, 2017.
- [A3] G. Caparra, M. Centenaro, N. Laurenti, and S. Tomasin, "Optimization of anchor nodes' usage for location verification systems," *Proc. Int. Conf. on Localization and GNSS*, Jun. 2017.

Journal Publications

- [J1] N. Ksairi, S. Tomasin, and M. Debbah, "A multi-service oriented multiple-access scheme for M2M support in future LTE," *IEEE Commun. Magazine*, vol. 55, no. 1, Jan. 2017, ISSN: 0163-6804. DOI: 10.1109/MCOM.2016.1500689CM.
- [J2] A. Benfarah, S. Tomasin, and N. Laurenti, "Power allocation in multiuser parallel Gaussian broadcast channels with common and confidential messages," *IEEE Trans. on Commun.*, vol. 64, no. 6, pp. 2326–2339, 2016, ISSN: 0090-6778. DOI: 10.1109/TCOMM.2016.2552166.
- [J3] R. Bonetto, M. Rossi, S. Tomasin, and M. Zorzi, "On the interplay of distributed power loss reduction and communication in low voltage microgrid," *IEEE Trans. Ind. Informatics*, vol. 2, no. 2, pp. 322–337, Feb. 2016. DOI: 10.1109/TII.2015.2509251.
- [J4] N. Benvenuto, S. Ciccotosto, and S. Tomasin, "Iterative block fractionally spaced nonlinear equalization for wideband channels," *IEEE Wireless Commun. Letters*, vol. 4, no. 5, pp. 489–492, Oct. 2015, ISSN: 2162-2337. DOI: 10.1109/LWC.2015.2444396.
- [J5] A. Ferrante, N. Laurenti, C. Masiero, M. Pavon, and S. Tomasin, "On the error region for channel estimation-based physical layer authentication over Rayleigh fading," *IEEE Trans. Inf. Forensics and Security*, vol. 10, no. 5, pp. 941–952, May 2015, ISSN: 1556-6013.
- [J6] E. Jorswieck, S. Tomasin, and A. Sezgin, "Broadcasting into the uncertainty: Authentication and confidentiality by physical-layer processing," *Proceedings of the IEEE*, vol. 103, no. 10, pp. 1702–1724, Oct. 2015, ISSN: 0018-9219. DOI: 10.1109/JPROC.2015.2469602.
- [J7] S. Tomasin and A. Dall'Arche, "Resource allocation for secret key agreement over parallel channels with full and partial eavesdropper CSI," *IEEE Trans. Info. Forensics and Security*, vol. 10, no. 11, pp. 2314–2324, Nov. 2015, ISSN: 1556-6013. DOI: 10.1109/TIFS.2015.2455412.
- [J8] M. Baldi, F. Chiaraluce, N. Laurenti, S. Tomasin, and F. Renna, "Secrecy transmission on parallel channels: Theoretical limits and performance of practical codes," *IEEE Trans. Inf. Forensics and Security*, vol. 9, no. 11, pp. 1765–1779, Nov. 2014, ISSN: 1556-6013. DOI: 10.1109/TIFS.2014.2348915.
- [J9] P. Baracca, S. Tomasin, and N. Benvenuto, "Backhaul rate allocation in uplink SC-FDMA systems with multicell processing," *IEEE Trans. Wireless Commun.*, vol. 13, no. 3, pp. 1264–1273, Mar. 2014, ISSN: 1536-1276. DOI: 10.1109/TWC.2014.011714.121946.
- [J10] S. Tomasin, "Routing over multi-hop fading wiretap networks with secrecy outage probability constraint," *IEEE Commun. Letters*, vol. 18, no. 10, pp. 1811–1814, Oct. 2014, ISSN: 1089-7798. DOI: 10.1109/LCOMM.2014.2352298.

- [J11] S. Tomasin and N. Laurenti, "Secure HARQ with multiple encoding over block fading channels: Channel set characterization and outage analysis," *IEEE Trans. Inf. Forensics and Security*, vol. 9, no. 10, pp. 1708–1719, 2014, ISSN: 1556-6013.
- [J12] S. Tomasin, F. Trentini, and N. Laurenti, "Secret key agreement by LLR thresholding and syndrome feedback over AWGN channel," *IEEE Commun. Letters*, vol. 18, no. 1, pp. 26–29, Jan. 2014, ISSN: 1089-7798. DOI: 10.1109/LCOMM.2013.112513.131744.
- [J13] **P. Baracca, N. Benvenuto, and S. Tomasin, "Resource allocation with multicell processing, interference cancellation and backhaul rate constraint in single carrier FDMA systems," Elsevier Physical Communication, vol. 8, pp. 69–80, Special issue on Broadband Single-carrier transmission techniques invited paper Sep. 2013, ISSN: 1874-4907. DOI: 10.1016/j.phycom.2012.09.003.**
- [J14] T. Erseghe and S. Tomasin, "Power flow optimization for smart microgrids by SDP relaxation on linear networks," *IEEE Trans. on Smart Grid*, vol. 4, no. 2, pp. 751–762, Jun. 2013, ISSN: 1949-3053. DOI: 10.1109/TSG.2012.2222677.
- [J15] T. Erseghe, S. Tomasin, and A. Vigato, "Topology estimation for smart micro grids via powerline communications," *IEEE Trans. Signal Processing*, vol. 61, no. 13, pp. 3368–3377, Jul. 2013, ISSN: 1053-587X. DOI: 10.1109/TSP.2013.2259826.
- [J16] S. Rosati, S. Tomasin, M. Butussi, and B. Rimoldi, "LLR compression for BICM systems using large constellations," *IEEE Trans. on Commun.*, vol. 61, no. 7, pp. 2864–2875, Jul. 2013, ISSN: 0090-6778. DOI: 10.1109/TCOMM.2013.052113.120776.
- [J17] P. Baracca, N. Laurenti, and S. Tomasin, "Physical layer authentication over MIMO fading wiretap channels," *IEEE Trans. Wireless Commun.*, vol. 11, no. 7, pp. 2564–2573, Jul. 2012, ISSN: 1536-1276. DOI: 10.1109/TWC.2012.051512.111481.
- [J18] 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, ISSN: 0090-6778. DOI: 10.1109/TCOMM.2012.011312.110140.
- [J19] P. Baracca, S. Tomasin, and N. Benvenuto, "A practical scheduling and power/constellation allocation for three relay networks," *EURASIP Journ. on Wireless Commun. and Networking*, vol. 2012, no. 1, p. 128, 2012, ISSN: 1687-1499. DOI: 10.1186/1687-1499-2012-128.
- [J20] M. Rotoloni, S. Tomasin, and L. Vangelista, "Maximum likelihood estimation of time and carrier frequency offset for DVB-T2," *IEEE Trans. Broadcasting*, vol. 58, no. 1, pp. 77–86, Mar. 2012, ISSN: 0018-9316. DOI: 10.1109/TBC.2011.2173367.
- [J21] S. Tomasin, "Resource allocation for network MIMO systems with HARQ and partial channel knowledge," *EURASIP Journ. Wireless Commun. and Networking*, vol. 2012, p. 355, Nov. 2012, ISSN: 1687-1499. DOI: 10.1186/1687-1499-2012-355.
- [J22] S. Tomasin and M. Butussi, "Low complexity demapping of rotated and cyclic Q delayed constellations for DVB-T2," *IEEE Wireless Commun. Letters*, vol. 1, no. 2, pp. 81–84, Apr. 2012, ISSN: 2162-2337. DOI: 10.1109/WCL.2012.012012.110260.
- [J23] 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, ISSN: 1536-1276. DOI: 10.1109/TWC.2011.011111.091682.
- [J24] 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, ISSN: 0090-6778. DOI: 10.1109/TCOMM.2011.121410.090252.
- [J25] M. Rossi, C. Tapparello, and S. Tomasin, "On optimal cooperato selection policies for multi-hop ad hoc networks," *IEEE Trans. Wireless Commun.*, vol. 10, no. 2, pp. 506–518, Feb. 2011, ISSN: 1536-1276. DOI: 10.1109/TWC.2011.120810.091560.
- [J26] S. Tomasin, "Consensus-based detection of malicious nodes in cooperative wireless networks," *IEEE Commun. Letters*, vol. 15, no. 4, pp. 404–406, Apr. 2011, ISSN: 1089-7798. DOI: 10.1109/LCOMM.2011.022411.102050.
- [J27] D. Zennaro, S. Tomasin, and L. Vangelista, "Base station selection in uplink macro diversity cellular systems with hybrid ARQ," *IEEE Journ. Sel. Areas in Commun.*, vol. 29, no. 6, pp. 1249–1259, Jun. 2011, ISSN: 0733-8716. DOI: 10.1109/JSAC.2011.110612.
- [J28] N. Benvenuto, R. Dinis, D. Falconer, and S. Tomasin, "Single carrier modulation with nonlinear frequency domain equalization: An idea whose time has come; again," *Proceedings of the IEEE*, vol. 98, no. 1, pp. 69–96, Jan. 2010, ISSN: 0018-9219. DOI: 10.1109/JPROC.2009.2031562.

- [J29] 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, ISSN: 1070-9908. DOI: 10.1109/LSP.2010.2071382.
- [J30] 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, ISSN: 1089-7798. DOI: 10.1109/LCOMM.2010.05.091470.
- [J31] E. Conte, S. Tomasin, and N. Benvenuto, "A comparison of scheduling strategies for MIMO broadcast channel with limited feedback on OFDM systems," *EURASIP Journ. Wireless Commun. and Networking*, vol. 2010, no. 1, p. 968 703, 2010, ISSN: 1687-1499. DOI: 10.1155/2010/968703.
- [J32] 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, Jul. 2010, ISSN: 1536-1276. DOI: 10.1109/TWC.2010.07.091454.
- [J33] 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, ISSN: 1089-7798. DOI: 10.1109/LCOMM.2010.03.092050.
- [J34] 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, ISSN: 0090-6778. DOI: 10.1109/TCOMM.2010.05.090052.
- [J35] 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, ISSN: 0090-6778. DOI: 10.1109/TCOMM.2009.08.070596.
- [J36] A. Goljahani, N. Benvenuto, S. Tomasin, and L. Vangelista, "Superimposed sequence versus pilot aided channel estimations for next generation DVB-T systems," *IEEE Trans. Broadcasting*, vol. 55, no. 1, pp. 140–144, Mar. 2009, ISSN: 0018-9316. DOI: 10.1109/TBC.2008.2012021.
- [J37] M. Rotoloni, M. Butussi, S. Tomasin, M. Lattuada, and C. Ruppert, "Multiple adaptive frequency filtering for OFDM channel estimation," *IEEE Trans. Broadcasting*, vol. 55, no. 4, pp. 826–830, Dec. 2009, ISSN: 0018-9316. DOI: 10.1109/TBC.2009.2030454.
- [J38] 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. 2391–2401, Aug. 2009, ISSN: 0090-6778. DOI: 10.1109/TCOMM.2008.08.070478.
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