Alberto Giuseppe Perotti

alberto.g.perotti@gmail.com // +39 347 740 3464 // Linkedin // Google Scholar

About me

I am a researcher in satellite communications with the ASTRACOM Research Group at Politecnico di Torino. Until 2025, I was a Principal Research Engineer at Huawei Technologies, where I conducted research on 4G and 5G wireless networks with a strong focus on 3GPP standardization, and coordinated collaborative research projects with academia. Previously, I spent nearly a decade as a researcher in academia, researching on wireless terrestrial and satellite communications, and on software-defined radios.

I hold a Ph.D. in Electronics and Communications [2003] ad a *Laurea* degree in Telecommunications Engineering [1999] from Politecnico di Torino, Italy.

Expertise

Wireless transmission systems research. See dedicated section "Research" below.
Modeling and simulation of transmission systems. Developed several wireless system simulators – link- and system-level – for performance evaluation and validation of lower-layer (PHY/MAC) functionalities in wireless systems. Matlab, python and C/C++.
3GPP standardization. Contributed for over 10 years to 3GPP standardization - Radio Access Network; participated as Huawei delegate to 3GPP RAN1 meetings from 2015 to 2017.
Software-defined radios. Developed in software DVB-T/S transmitter and DVB-T receiver (GnuRadio custom C++ blocks, Intel x86). Developed CCSDS turbo-coded data link for accelerated performance evaluation and integration into ESA-ESOC test equipment (C and Texas Instruments C6000 DSP assembly, single- and multi-DSP boards).
Management and coordination of research projects. Project manager of Huawei internal research projects in cooperation with Academia:

- *5G NR FR1/FR2 V2X communications*, cooperation with Politecnico di Milano, Italy;
- *Iterative error correction codes for channels with noisy feedback*, *Iterative error correction codes for realistic wireless channels*, both in cooperation with Imperial College London, UK.

Quantum error correction. Developing *qLDPCsim*, a quantum LDPC simulator.
Academic teaching. Lectured undergraduate and graduate courses in wireless communications at Politecnico di Torino for several years.
Editorial experience. See dedicated section "Editorial Experiece" below.
Programming languages and tools. Matlab, Keras/Tensorflow, Pytorch; python, C/C++, assembly languages of Intel x86 processors, TI's C6000 DSPs, ARM processors, PIC microcontrollers, Z80; GIT, SVN.
Languages. *Italian*: mother tongue; *English*: professional working proficiency; *French*: basic.

Research

Error correction codes: Low Density Parity Check (LDPC) codes, polar codes, sparse superposition codes, parallel (turbo) and serial concatenations of convolutional codes, algebraic codes (Reed-Solomon, BCH, etc.), nonlinear codes, codes for identification. [1], [2]; [17], [18], [19], [20], [21], [22], [23], [24], [25], [26], [27], [28], [29]; [55]. **AI/Machine-learning**: deep learning-based design and decoding of ultra-reliable error correction codes. [3], [4], [5], [6]; [30]. **Modulations and waveforms**: constant-envelope continuous phase modulations (CPM); trellis-coded modulation; adaptive coded modulation methods; waveforms for simultaneous information and power transfer (SWIPT); coded modulations for direct satellite uplink. [7], [8], [9], [10]; [31], [32], [33], [34], [35], [36], [37], [38]; [56]. **Channel estimation and prediction**: massive MIMO channel prediction in FDD networks. [57]. **Multiple access**: orthogonal/non-orthogonal multiple access; interleaver-division multiple access; multiuser detection and interference cancellation. [11], [12]; [39], [40], [41], [42], [43], [44]. **V2X communications.** High-gain beamforming and opportunistic relay for V2V and V2I communications. [13], [14] [45]. **Cognitive**

radio and spectrum sensing. Sensing of DVB signals, signal processing software optimization of sensing algorithms, RF immunity evaluations. [15], [16]; [46], [47], [48], [49], [50]; [52], [53], [54]. **Software-defined radios**: optimization of real-time wireless transceiver signal processing algorithms on digital signal processing platforms. [47], [51].
Corresponding patents: 18 granted patents, 27 pending applications, 6 patents with potential standard-essential declarations.

Education

Aug 2003. Ph.D. degree in Electronics and Communications, Politecnico di Torino. Dissertation on **Design of concatenated convolutional codes with interleavers and their decoder implementation on multi-DSP systems**.
Supervisor: prof. S. Benedetto.

Mar 1999. Laurea[1] degree in Telecommunications Eng., Politecnico di Torino. Monograph on **Design and real-time DSP implementation of a CCSDS turbo decoder**.
Supervisors: prof. S. Benedetto, prof. A. Serra.

Employment

June 2013 - present Huawei Technologies Sweden/Italy. Principal research engineer, research on PHY layer of 5G/6G radio access networks; contributing to 3GPP standardization in Radio Access Networks Working Group on Radio Layer 1 - Physical layer (RAN1); management of research projects in cooperation with Academia.

April 2011 - May 2013. CSP–ICT Innovation, Torino (Italy). Head of the *Wireless Communications and Networks* research unit.

Mar 2010- Mar 2011. Assistant Professor at Università e-Campus, Novedrate (Como), Italy. Research on spectral/energy efficient wireless communication systems.

Aug 2003–Mar 2010. Post-doctoral researcher at Politecnico di Torino, Italy. Research on PHY algorithms and architectures for wireless multimedia broadband transmission, adaptive coding and modulation system for satellite communications.

Jan-Oct 2002. Sequoia Communications (no longer in business), San Diego (CA), USA. Staff member of baseband signal processing branch in Los Angeles. Development of baseband signal processing algorithms for a prototype 3G (UMTS) receiver. Head of division/supervisor: prof. Dariush Divsalar (JPL).

Jan-Aug 2002. University of California, Los Angeles (CA), USA. Visiting scholar in the Electrical Eng. Dept. Research on design of serially concatenated convolutional codes. Supervisor: prof. Richard D. Wesel.

Teaching

I taught several graduate (G) and undergraduate (UG) courses at my alma mater – Politecnico di Torino – and in other Universities, as part of Politecnico's joint programs with those institutions. All courses have been taught in Italian unless otherwise indicated.

[1] In the Italian academic system before the 1999 reform, the *laurea* degree was the highest academic degree obtainable before Ph.D. It is considered equivalent to a masters' degree.

As lecturer:

2012–13	*Software-defined radio on open-source platforms*, Telecom. Eng., (G, taught in English).
2011–12	*Software-defined radio on open-source platforms*, Telecom. Eng. (G, taught in English).
2010–11	*Trasmissione sul Canale Radiomobile* (Wireless transm.), Telecom. Eng. (UG); *Comunicazioni Elettriche* (Communication Systems), Elec. Eng. (UG).
2009–10	*Trasmissione sul Canale Radiomobile* (Wireless transm.), Telecom. Eng. (UG); *Comunicazioni Elettriche* (Communication Systems), Elec. Eng. (UG).
2008–09	*Wireless Transmission Systems*, Telematics Eng., (G, taught in English). *Trasmissione sul Canale Radiomobile* (Wireless transm.), Telecom. Eng. (UG); *Comunicazioni Elettriche* (Communication Systems), Elec. Eng. (UG).
2007–08	*Trasmissione sul Canale Radiomobile* (Wireless transm.), Telecom. Eng. (UG). *Comunicazioni Elettriche* (Communication Systems), Elec. Eng., (UG).
2006–07	*Fondements de communications électriques*, Information Eng., joint program with Polytech Grenoble (UG, taught in English);
2005–06	*Fondements de communications électriques*, Information Eng., joint program with Polytech Grenoble (UG, taught in English).

As teaching assistant:

2006–07	*Trasmissione sul Canale Radiomobile* (Wireless Transm.), Telecom. Eng. (UG). *Comunicazioni Elettriche* (Communication Systems), Elec. Eng. (UG).
2005–06	*Trasmissione sul Canale Radiomobile* (Wireless Transm.), Telecom. Eng. (UG). *Elaborazione Numerica dei Segnali* (Digital Signal Proc.), Telecom. Eng. (UG); *Comunicazioni Elettriche* (Communication Systems), Elec. Eng. (UG).
2004–05	*Trasmissione sul Canale Radiomobile* (Wireless Transm.), Telecom. Eng. (UG). *Elaborazione Numerica dei Segnali* (Digital Signal Proc.), Telecom. Eng. (UG); *Comunicazioni Elettriche* (Communication Systems), Elec. Eng. (UG).
2003–04	*Trasmissione sul Canale Radiomobile* (Wireless Transm.), Telecom. Eng. (UG). *Elaborazione Numerica dei Segnali* (Digital Signal Proc.), Telecom. Eng. (UG);

Supervised master theses

Supervised/co-supervised twelve master theses 2009-2013.

Editorial Experience

IEEE Senior Member since 2014.
Served as editorial board member of IEEE Communications Magazine:

- *Associate Editor in Chief* from Nov 2021 to Dec 2023;
- *Lead Editor* of Mobile Communications and Networks Series from Sep 2019 to Nov 2021.
- *Associate Technical Editor* from Oct 2014 to Aug 2019;

Serving as a journal/magazine article reviewer and conference TPC member/reviewer:

Journals and Magazines (selected)

- IEEE Communications Magazine
- IEEE Transactions on Communications
- IEEE Transactions on Information Theory

- IEEE Transactions on Signal Processing
- IEEE Transactions on Wireless Communications
- IEEE Communications Letters (exemplary reviewer in 2015)
- IEEE Journal of Selected Topics in Signal Processing
- IET Communications
- Computer Communications (Elsevier)
- Wireless Personal Communications (Springer)
- European Transactions on Telecommunications (Wiley)

Conference TPC Memberships (selected)

- IEEE Global Communications Conference (Globecom)
- IEEE International Conference on Communications (ICC)
- IEEE Personal, Indoor and Mobile Radio Communications (PIMRC)
- IEEE Wireless Communications and Networking Conference (WCNC)
- IEEE International Symposium on Information Theory (ISIT)
- IEEE Information Theory Workshop (ITW)
- EuCNC & 6G Summit
- International Symposium on Wireless Communication Systems (ISWCS)

Appointments/board membership

- Springer book series Textbooks in Telecommunication Eng.: member of Editorial Advisory Board, 2024-now.
- CCABA - Advanced Broadband Communications Center at Universitat Politécnica de Catalunya: member of External Advisory Board, 2021-now.
- French National Research Agency, project proposal reviewer, 2020.

Bibliography

See also my Google Scholar profile and my complete list of publications.

Journal Articles

[1] A. Perotti and S. Benedetto, "A new upper bound on the minimum distance of turbo codes," *IEEE Transactions on Information Theory*, vol. 50, no. 12, pp. 2985–2997, 2004. DOI: 10.1109/TIT.2004.838358.

[2] A. Perotti and S. Benedetto, "An upper bound on the minimum distance of serially concatenated convolutional codes," *IEEE Transactions on Information Theory*, vol. 52, no. 12, pp. 5501–5509, 2006. DOI: 10.1109/TIT.2006.885447.

[3] A. R. Safavi, A. G. Perotti, B. M. Popović, M. Boloursaz Mashhadi, and D. Gündüz, "Deep extended feedback codes," *ITU Journal on Future and Evolving Technologies*, vol. 2, no. 6, pp. 33–41, 2021. DOI: 10.52953/SNLM1743.

[4] E. Ozfatura, Y. Shao, A. G. Perotti, B. M. Popović, and D. Gündüz, "All you need is feedback: Communication with block attention feedback codes," *IEEE Journal on Selected Areas in Information Theory*, vol. 3, no. 3, pp. 587–602, 2022. DOI: 10.1109/JSAIT.2022.3223901.

[5] M. Boloursaz Mashhadi, D. Gündüz, A. G. Perotti, and B. M. Popović, "DRF codes: Deep SNR-robust feedback codes," *ITU Journal on Future and Evolving Technologies*, vol. 4, no. 3, pp. 447–460, 2023. DOI: 10.52953/DAPE6014.

[6] Y. Shao, E. Ozfatura, A. G. Perotti, B. M. Popović, and D. Gündüz, "Attentioncode: Ultra-reliable feedback codes for short-packet communications," *IEEE Transactions on Communications*, vol. 71, no. 8, pp. 4437–4452, 2023. DOI: 10.1109/TCOMM.2023.3280563.

[7] A. Perotti, S. Benedetto, and P. Remlein, "Adaptive coded continuous-phase modulations for frequency-division multiuser systems," *Advances in Electronics and Telecommunications*, vol. 1, no. 1, pp. 50–58, 2010, Journal published by Poznan University of Technology, Poznan, Poland, during years 2010-2013.

[8] A. Perotti, A. Tarable, S. Benedetto, and G. Montorsi, "Capacity-achieving CPM schemes," *IEEE Transactions on Information Theory*, vol. 56, no. 4, pp. 1521–1541, 2010. DOI: 10.1109/TIT.2010.2040861.

[9] P. Remlein, M. Jasinski, and A. Perotti, "Receiver algorithm for coded multiuser CPM systems," *IET Electronics Letters*, vol. 48, no. 11, pp. 631–633, 2012. DOI: 10.1049/el.2011.3769.

[10] A. G. Perotti, M. N. Khormuji, and B. M. Popović, "Simultaneous wireless information and power transfer by continuous-phase modulation," *IEEE Communications Letters*, vol. 24, no. 6, pp. 1294–1298, 2020. DOI: 10.1109/LCOMM.2020.2981316.

[11] H. Wu, L. Ping, and A. Perotti, "User-specific chip-level interleaver design for IDMA systems," *IET Electronics Letters*, vol. 42, no. 4, pp. 233–234, 2006. DOI: 10.1049/el:20063770.

[12] A. R. Safavi, A. G. Perotti, and B. M. Popović, "Ultra low density spread transmission," *IEEE Communications Letters*, vol. 20, no. 7, pp. 1373–1376, 2016. DOI: 10.1109/LCOMM.2016.2564379.

[13] F. Linsalata, S. Mura, M. Mizmizi, M. Magarini, P. Wang, M. N. Khormuji, A. Perotti, and U. Spagnolini, "LoS-map construction for proactive relay of opportunity selection in 6G V2X systems," *IEEE Transactions on Vehicular Technology*, vol. 72, no. 3, pp. 3864–3878, 2023. DOI: 10.1109/TVT.2022.3217966.

[14] G. Ciaramitaro, M. Brambilla, D. Tagliaferri, E. Bozzi, M. Nicoli, A. Perotti, and U. Spagnolini, "On the impact of road roughness and antenna position on vehicular communications," *IEEE Wireless Communications Letters*, vol. 11, no. 9, pp. 1875–1879, 2022. DOI: 10.1109/LWC.2022.3185054.

[15] A. M. Masri, C.-F. Chiasserini, C. Casetti, and A. Perotti, "Common control channel allocation in cognitive radio networks through UWB communication," *Journal of Communications and Networks*, vol. 14, no. 6, pp. 710–718, 2012. DOI: 10.1109/JCN.2012.00037.

[16] D. Riviello, R. Garello, S. Benco, F. Crespi, and A. Perotti, "Spectrum sensing in the TV white spaces," *IARIA International Journal on Advances in Telecommunications*, vol. 6, no. 3-4, pp. 109–122, 2013. [Online]. Available: https://www.iariajournals.org/telecommunications/tocv6n34.html.

Conference Papers

[17] G. Montorsi, P. Coccia, A. Perotti, R. Garello, R. Maggiora, S. Benedetto, A. Serra, E. Vassallo, and G. P. Calzolari, "DSP implementation of the newly proposed ccsds telemetry channel coding standard," in *Proc. International Symposium on Turbo Codes*, Brest, France, Sep. 2000.

[18] A. Perotti, G. Montorsi, S. Benedetto, G. P. Calzolari, and E. Vassallo, "Implementation of turbo codes for space communications using a multiprocessor DSP board," in *AIAA International Communications Satellite Systems Conference*, Toulouse, France, Apr. 2001.

[19] B. Scanavino, A. Perotti, G. Montorsi, and S. Benedetto, "Easy stopping rules for the bit error rate minimization in the iterative decoding," in *Canadian Workshop on Information Theory*, Vancouver, Canada, Jun. 2001.

[20] A. Perotti, G. Montorsi, and S. Benedetto, "Multiprocessor implementation of an iterative turbo decoder and concatenation with an outer block code," in *International Conference on Software, Telecommunications and Computer Networks*, Ancona, Italy, Oct. 2001.

[21] A. Perotti, G. Montorsi, and S. Benedetto, "Error statistics of turbo decoder and performace improvement due to outer algebraic block codes," in *ESA Workshop on Tracking, Telemetry and Channel Coding*, Noordwjik, Netherlands, Oct. 2001.

[22] A. Perotti, G. Montorsi, and S. Benedetto, "Performance analysis and optimization of concatenated block-turbo coding schemes," in *2004 IEEE International Conference on Communications (IEEE Cat. No.04CH37577)*, vol. 1, 2004, pp. 332–336. DOI: 10.1109/ICC.2004.1312505.

[23] A. Perotti and S. Benedetto, "A new upper bound on the minimum distance of turbo codes," in *International Symposium onInformation Theory, 2004. ISIT 2004. Proceedings.*, 2004, pp. 313–313. DOI: 10.1109/ISIT.2004.1365350.

[24] A. Perotti and S. Benedetto, "An upper bound on the minimum distance of serially concatenated convolutional codes," in *International Symposium onInformation Theory, 2004. ISIT 2004. Proceedings.*, 2004, pp. 314–314. DOI: 10.1109/ISIT.2004.1365351.

[25] M. Anghilieri, M. Paonni, B. Eissfeller, M. Luise, A. Perotti, A. Tarable, G. López-Risueño, and F. Zanier, "A fresh look into designing channel error protection codes for satellite navigation messages," in *5th European workshop on GNSS signals and signal processing*, Toulouse, France, Dec. 2011.

[26] A. G. Perotti and B. M. Popović, "Quasi-orthogonal sparse superposition codes," in *2019 IEEE Global Communications Conference (GLOBECOM)*, 2019, pp. 1–6. DOI: 10.1109/GLOBECOM38437.2019.9013169.

[27] M. N. Khormuji, A. G. Perotti, Q. Yi, and B. M. Popović, "Multi-modal concurrent transmission," in *2024 IEEE Wireless Communications and Networking Conference (WCNC)*, 2024, pp. 1–6. DOI: 10.1109/WCNC57260.2024.10570941.

[28] A. G. Perotti, F. Berggren, and B. M. Popović, "Identification codes for wake-up signals," in *ICC 2024 - IEEE International Conference on Communications*, 2024, pp. 3839–3844. DOI: 10.1109/ICC51166.2024.10622681.

[29] F. Berggren, A. G. Perotti, and B. M. Popović, "Wake-up signal multiplexing with non-coherently detected waveforms," in *2024 IEEE 99th Vehicular Technology Conference (VTC2024-Spring)*, 2024, pp. 1–6. DOI: 10.1109/VTC2024-Spring62846.2024.10682825.

[30] E. Ozfatura, Y. Shao, A. Ghazanfari, A. Perotti, B. Popović, and D. Gündüz, "Feedback is good, active feedback is better: Block attention active feedback codes," in *ICC 2023 - IEEE International Conference on Communications*, 2023, pp. 6652–6657. DOI: 10.1109/ICC45041.2023.10278839.

[31] S. Benedetto, G. Montorsi, A. Perotti, and A. Tarable, "A pragmatic approach to coded continuous-phase modulation," in *2007 Information Theory and Applications Workshop*, 2007, pp. 36–40. DOI: 10.1109/ITA.2007.4357559.

[32] S. Benedetto, G. Montorsi, A. Perotti, and A. Tarable, "Optimization of CPM pragmatic capacity," in *IEEE GLOBECOM 2007 - IEEE Global Telecommunications Conference*, 2007, pp. 1421–1425. DOI: 10.1109/GLOCOM.2007.273.

[33] A. Perotti, P. Remlein, and S. Benedetto, "Adaptive coded CPM systems: Spectral efficiency and complexity evaluation," in *6th Karlsruhe Workshop on Software Radios (WSR 2010)*, Karlsruhe, Germany, Mar. 2010.

[34] A. Perotti, S. Benedetto, and P. Remlein, "Spectrally efficient multiuser continuous-phase modulation systems," in *2010 IEEE International Conference on Communications*, 2010, pp. 1–5. DOI: 10.1109/ICC.2010.5501939.

[35] A. Perotti, P. Remlein, and S. Benedetto, "Adaptive coded CPM systems," in *Future Networks and Mobile Summit (FUNEMS 2010)*, Florence, Italy, Jun. 2010.

[36] A. Perotti and S. Benedetto, "Capacity achieving modulations for the peak-power limited gaussian channel," in *2010 IEEE Global Telecommunications Conference GLOBECOM 2010*, 2010, pp. 1–5. DOI: 10.1109/GLOCOM.2010.5683683.

[37] P. Remlein, M. Jasinski, and A. Perotti, "Multiuser coded FDM-CPM systems with MIMO transmission," in *Eighth International Conference on Systems and Networks Communications (ICSNC 2013)*, Venice, Italy, Oct. 2013.

[38] M. N. Khormuji, B. M. Popović, and A. G. Perotti, "Enabling SWIPT via OFDM-DC," in *2019 IEEE Wireless Communications and Networking Conference (WCNC)*, 2019, pp. 1–6. DOI: 10.1109/WCNC.2019.8886079.

[39] B. M. Popović, A. R. Safavi, and A. G. Perotti, "Bit-interleaved low density spread (BI-LDS) transmission," in *2014 IEEE Wireless Communications and Networking Conference (WCNC)*, 2014, pp. 677–682. DOI: 10.1109/WCNC.2014.6952129.

[40] A. G. Perotti and B. M. Popović, "Enhanced trellis coded multiple access (ETCMA)," in *2014 IEEE Information Theory Workshop (ITW 2014)*, 2014, pp. 471–475. DOI: 10.1109/ITW.2014.6970876.

[41] A. G. Perotti, J. van de Beek, and B. M. Popović, "Downlink overloaded multiple access based on constellation expansion," in *2014 IEEE Globecom Workshops (GC Wkshps)*, 2014, pp. 977–982. DOI: 10.1109/GLOCOMW.2014.7063560.

[42] A. G. Perotti and B. M. Popović, "Turbo trellis coded multiple access," in *2014 IEEE Globecom Workshops (GC Wkshps)*, 2014, pp. 881–886. DOI: 10.1109/GLOCOMW.2014.7063544.

[43] A. G. Perotti and B. M. Popović, "Non-orthogonal multiple access for degraded broadcast channels: RA-CEMA," in *2015 IEEE Wireless Communications and Networking Conference (WCNC)*, **Awarded Best Paper in the "PHY and Fundamentals" track**, 2015, pp. 735–740. DOI: 10.1109/WCNC.2015.7127561.

[44] P. Soldati, A. G. Perotti, and B. M. Popović, "Optimal user scheduling and rate selection for REMA broadcast-channel transmission," in *2016 IEEE Global Communications Conference (GLOBECOM)*, 2016, pp. 1–6. DOI: 10.1109/GLOCOM.2016.7842100.

[45] S. Mura, F. Linsalata, M. Mizmizi, M. Magarini, M. N. Khormuji, P. Wang, A. Perotti, and U. Spagnolini, "Spatial-interference aware cooperative resource allocation for 5G V2V communications," in *2022 IEEE 95th Vehicular Technology Conference: (VTC2022-Spring)*, 2022, pp. 1–6. DOI: 10.1109/VTC2022-Spring54318.2022.9860812.

[46] A. Masri, C.-F. Chiasserini, and A. Perotti, "Control information exchange through UWB in cognitive radio networks," in *IEEE 5th International Symposium on Wireless Pervasive Computing 2010*, 2010, pp. 110–115. DOI: 10.1109/ISWPC.2010.5483805.

[47] S. Benco, A. Ghittino, F. L. Crespi, and A. Perotti, "Software-defined white-space cognitive systems: Implementation of the spectrum sensing unit," in *2nd workshop of COST Action IC0902*, Castelldefels, Spain, Oct. 2011.

[48] D. Riviello, S. Benco, F. L. Crespi, R. Garello, and A. Perotti, "A comparison between multisensor and CP-based spectrum sensing for TV white spaces," in *3rd workshop of COST Action IC0902*, Ohrid, Macedonia, Sep. 2012. DOI: 10.13140/2.1.1261.6001.

[49] D. Riviello, R. Garello, F. L. Crespi, S. Benco, and A. Perotti, "Sensing of DVB-T signals for white space cognitive radio systems," in *Third International Conference on Advances in Cognitive Radio (COCORA 2013)*, **Awarded Best Paper**, Venice, Italy, Apr. 2013. [Online]. Available: https://www.iaria.org/conferences2013/ProgramCOCORA13.html.

[50] L. Torrero, P. Mollo, A. Molino, and A. Perotti, "RF immunity testing of an unmanned aerial vehicle platform under strong EM field conditions," in *2013 7th European Conference on Antennas and Propagation (EuCAP)*, 2013, pp. 263–267.

[51] F. L. Crespi, M. Maglioli, S. Benco, and A. Perotti, "A real-time video broadcasting system based on the GNU radio-USRP2 platform," in *7th Karlsruhe Workshop on Software Radios (WSR 2012)*, Karlsruhe, Germany, Mar. 2012.

Book Chapters

[52] D. Riviello, S. Benco, F. L. Crespi, A. Ghittino, R. Garello, and A. Perotti, "Spectrum sensing algorithms for cognitive TV white-spaces systems," in *Cognitive Communication and Cooperative HetNet Coexistence*, M.-G. Di Benedetto and F. Bader, Eds. Springer, 2014. DOI: 10.1007/978-3-319-01402-9.

[53] K. Katzis, A. Perotti, and L. De Nardis, "Testbeds and implementation issues," in *Cognitive Communication and Cooperative HetNet Coexistence*, M.-G. Di Benedetto and F. Bader, Eds. Springer, 2014. DOI: 10.1007/978-3-319-01402-9.

[54] A. F. Cattoni, J. L. Buthler, O. Tonelli, L. A. Da Silva, J. P. Miranda, P. Sutton, F. L. Crespi, S. Benco, A. Perotti, and D. Riviello, "Designing a CR test bed - practical issues," in *Cognitive Radio and Networking for Heterogeneous Wireless Networks*, M.-G. Di Benedetto, A. F. Cattoni, J. Fiorina, F. Bader, and L. De Nardis, Eds. Springer, 2014. DOI: 10.1007/978-3-319-01718-1.

Non peer-reviewed publications

[55] A. G. Perotti, B. M. Popović, and A. R. Safavi, *Accumulative iterative codes based on feedback*, Jun. 2021. DOI: 10.48550/arXiv.2106.07415. [Online]. Available: https://arxiv.org/abs/2106.07415.

In preparation manuscripts

[56] A. G. Perotti and B. M. Popović, "Pilot-less direct satellite up-link by quasi-orthogonal sparse superposition codes (provisional title)," In preparation.

[57] A. G. Perotti and B. M. Popović, "FDD massive MIMO prediction based on partial reciprocity (provisional title)," In preparation.

GDPR STATEMENT

I authorise the processing of personal data contained within this CV, according to GDPR (EU) 2016/679, Article 6.1(a).