

CURRICULUM VITAE

January 2026

NAME: Alberto Carini
BIRTH DATE: 5 June 1967
NATIONALITY: Italian
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EDUCATION:

- Laurea summa cum laude and “dignità di stampa” (print honor) in Electronic Engineering, University of Trieste, February 1994. Thesis: “Codifica di Forme d’Onda ad Elevata Qualità Mediante Predittori Quadratici con Applicazione al Segnale Vocale” (“High Quality Waveform Coding by means of Quadratic Predictors with Application to Voice”) referees: Prof. Giovanni L. Sicuranza and Dr. Enzo Mumolo.
- State Exam for Professional Engineering Certificate, April 1994.
- Ph.D. in Information Engineering, University of Trieste, May 1998. Thesis: “Adaptive and Nonlinear Signal Processing,” referee: Prof. Giovanni L. Sicuranza.

ATTENDED COURSES:

- “Didactic Integration Course,” Siemens Telecommunications S.p.A., Cologno Monzese (MI) Italia, September 1992.
- “Recent Advances in Image Processing,” TUHH University of Technology Hamburg, Harburg, Germany, 4-8 September 1995.
- “National School for Ph.D. Students in Electronics,” 16-20 December 1996, Scuola Superiore Reiss Romolis, L’Aquila, Italy.
- “TMS320C54x Fixed-Point DSP Design Workshop,” 9-12 May 2000, TI, Northampton, United Kingdom.

HONORS:

- G. Zoldan Prize received from AEI-Trieste for the best Laurea Degree in Electronic Engineering at the University of Trieste during the Academic Year 1992-93.
- Invited speech: “The road of an acoustic echo controller for mobile telephony from product definition till production,” at IWAENC 2001, International Workshop on Acoustic Echo and Noise Control, September 10-13 2001, Darmstadt, Germany.
- Since January 2022, he is serving as Area Editor for area “Acoustics and Adaptive Signal Processing” of the journal “Digital Signal Processing” edited by Elsevier, Amsterdam, The Netherlands.
- From August 2023 till December 2024, he has served as Associate Editor for of the “EURASIP Journal on Advances in Signal Processing” edited by Springer.

- From May 2005 till December 2021, he has served as a Handling Editor of the journal "Signal Processing" edited by Elsevier, Amsterdam, The Netherlands.
- In 2016 and 2017, he has served as Lead Guest editor of the Special Issue "Nonlinear Signal and Image Processing - A Special Issue in Honour of Giovanni L. Sicuranza on his Seventy-Fifth Birthday" of EURASIP Journal on Advances in Signal Processing, Springer.
- He has served as Organizing Chair for SIE 2021 the 52nd Annual Meeting of the Italian Society of Electronics (Società Italiana di Elettronica), July 7-9, Trieste, Italy
- He has served as Organizing Chair and School co-Chair for the SIE 2021 Ph.D. School in Electronics for IoT, July 5-7, Trieste, Italy
- He has served as the Program Co-Chair for the signal processing area of the 6th International Symposium on Image and Signal Processing and Analysis, ISPA 2009, September 16-18, 2009, Salzburg, Austria.
- He has served as the Program Co-Chair for the signal processing area of the 8th International Symposium on Image and Signal Processing and Analysis, ISPA 2013, September 4-6, 2013, Trieste, Italy.
- Since January 2015 till December 2020, he was a member of the Signal Processing Theory and Methods Technical Committee of IEEE Signal Processing Society.
- From January 2006 till December 2011, he was a member of the Signal Processing Theory and Methods Technical Committee of IEEE Signal Processing Society.
- From May 2010 till December 2016, he was a member of APSIPA Technical Committee on Information Processing Theory and Applications.
- In 2009 and 2010, he was a member of the Conference Board of IEEE Signal Processing Society.
- From December 2007 till October 2011, he was the President of the Laurea Course in Applied Computer Science of the University of Urbino, Faculty of Science and Technology.
- He has served as Student Paper Contest co-chair at ICASSP 2104, 2014 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Florence, 4-9 May, 2014.
- He has served in the organization committee of NSIP-03, 2003 IEEE-EURASIP Workshop on Nonlinear Signal and Image Processing, June 8-11, 2003, Grado, Italy and in the technical committee or program committee of
 - IWAENC 2003, International Workshop on Acoustic Echo and Noise Control, September 8-11, 2003, Kyoto, Japan,
 - IWAENC 2005, International Workshop on Acoustic Echo and Noise Control, September 12 - 15, 2005, Eindhoven, The Netherlands,
 - ISPA 2005, 4th International Symposium on Image and Signal Processing and Analysis, September 15-17, 2005, Zagreb, Croatia,
 - ISPA 2007, 5th International Symposium on Image and Signal Processing and Analysis, September 27-29, 2007, Istanbul, Turkey,
 - IWAENC 2008, International Workshop on Acoustic Echo and Noise Control, September 14-17, Seattle, WA, USA,
 - IEEE Signal Processing Society 13th DSP Workshop & 5th SPE Workshop, January 4-7, 2009, Marco Island, FL, USA,
 - IWAENC 2010, International Workshop on Acoustic Echo and Noise Control, August 30 - September 2, Tel Aviv, Israel,
 - ISPA 2011, 7th International Symposium on Image and Signal Processing and Analysis, September 4-6, 2011, Dubrovnik, Croatia,

- DSP/SPE 2011, 14th DSP Workshop & 6th SPE Workshop, January 4-7, 2011, Sedona, Arizona, USA,
- IWAENC 2012, International Workshop on Acoustic Signal Enhancement, RWTH Aachen University, September 4-6, 2012, Aachen, Germany,
- ITS 2014, 2014 International Telecommunications Symposium, São Paulo, Brazil, August 17 - 20, 2014,
- IWAENC 2014, International Workshop on Acoustic Signal Enhancement, Antibes - Juan les Pins, France, September 8-11, 2014, France,
- SPIN 2015, Signal Processing & Integrated Networks, Noida, India, February 19-20 2015.
- SPIN 2016, Signal Processing & Integrated Networks, Noida, India, Feb 11-12, 2016.
- IEEE SAM 2016, The Ninth IEEE Sensor Array and Multichannel Signal Processing Workshop 10th-13th July 2016, Rio de Janeiro, Brazil
- MLSP2016, IEEE International Workshop on Machine Learning for Signal Processing, September 13-16, 2016 Vietri sul Mare, Salerno, Italy
- IWAENC 2016, International Workshop on Acoustic Signal Enhancement, Xi'an, China, Sept. 13 - 16, 2016.
- CMI 2016, IEEE First International Conference on Control, Measurement and Instrumentation, Jan. 8-10, 2016, Kolkata, India
- EUSIPCO 2017, European Signal Processing Conference, Kos Island, Greece, Aug. 28 - Sept. 2, 2017
- SPIN 2018, Signal Processing & Integrated Networks, Noida, India, Feb 22-23, 2018.
- IWAENC 2018, International Workshop on Acoustic Signal Enhancement, Tokyo, Japan, 17-20 Sept, 2018
- EUSIPCO 2018, European Signal Processing Conference, Roma, Italy, Sept. 3-7, 2018
- EUSIPCO 2019, European Signal Processing Conference, A Coruña, Spain, Sept. 2-6, 2019
- SPIN 2019, Signal Processing & Integrated Networks, Noida, India, Mar. 7-8, 2019.
- SPIN 2020, Signal Processing & Integrated Networks, Noida, India, Feb. 27-28, 2020.
- CMI 2021, IEEE Second International Conference on Control, Measurement and Instrumentation, Jan. 8-10, 2021, Kolkata, India
- SSP 2021, IEEE Statistical Signal Processing Workshop, July 11-14, 2021, Rio de Janeiro, Brazil.
- SPSympo-2021, Signal Processing Symposium, 21-23 September 2021, Lodz, Poland.
- SPIN 2021, 8th International Conference on Signal Processing and Integrated Networks 26- 27 August 2021, Noida- Delhi NCR, India
- SPIN 2022, 9th International Conference on Signal Processing and Integrated Networks, 25- 26 August 2022, Amity University, Noida- Delhi NCR, India.
- SPIN 2023, 10th International Conference on Signal Processing and Integrated Networks on 23-24 March 2023, Amity University, Noida- Delhi NCR, India.
- SSP 2023, IEEE Statistical Signal Processing Workshop (SSP), July 2-5, 2023, Hanoi, Vietnam.
- Globecom 2023 SPC, 2023 IEEE Global Communications Conference: Signal Processing for Communications, 4-8 December 2023, Kuala Lumpur, Malaysia

- He has served as guest associate editor in the special section on "Spatial Acoustic Signal Processing and Applications" in the IEICE Transactions of Fundamentals, Guest Editor-in-Chief: Yoshinobu Kajikawa, September 2014 issue.
- In 2016-17, he has organized with V. John Mathews and Giovanni Ramponi the Special Session "Nonlinear signal and image processing - a celebration in honour of Giovanni L. Sicuranza on his 75th birthday", 23rd European Signal Processing Conference (EUSIPCO 2015), 31 Aug. - 4 Sept. 2015, Nice, France
- Together with Giovanni Ramponi and V. John Mathews he has edited the Special Issue "Nonlinear Signal and Image Processing - A Special Issue in Honour of Giovanni L. Sicuranza on his Seventy-Fifth Birthday" of the EURASIP Journal on Advances in Signal Processing, ISSN: 1687-6180 (Online)
- He has organized with Danilo Comminiello and Luis Azpicueta-Ruiz the Special Session "Advances on Linear-in-the-Parameters Nonlinear Filters and Their Application to Audio and Speech Processing", 24th European Signal Processing Conference (EUSIPCO 2016), 29 Aug. - 02 Sept. 2016, Budapest, Hungary
- He has organized with Danilo Comminiello and Luis Azpicueta-Ruiz the Special Session "Novel Advances On Linear-In-The-Parameters Nonlinear Filters And Their Applications", 25th European Signal Processing Conference (EUSIPCO 2017), 28 Aug. - 02 Sept. 2017, Kos, Greece.
- He has organized with Tirza Routtenberg, Emilie Chouzenoux, Piya Pal, Jose C.M. Bermudez, and Lucio Marcenaro the 2020 IEEE 5-Minute Video Clip Contest of the Signal Processing Society entitled "Fight the Pandemic".
- The paper "An adaptive multiple position room response equalizer in warped domain" authored by S. Cecchi, A. Carini, A. Primavera, and F. Piazza, was ranked among the top papers (by the reviewers) at the 2012 European Signal Processing Conference (EUSIPCO 2012) in Bucharest.
- He has acted as a reviewer for the following international journals: "Adaptive Control and Signal Processing," "EURASIP Journal on Advances in Signal Processing," "EURASIP Journal on Audio, Speech and Music Processing," "IEEE/ACM Transactions on Audio, Speech and Language Processing," "IEEE Transactions on Circuits and Systems I," "IEEE Signal Processing Letters", "IEEE Transactions on Signal Processing", "Journal of Advances in Acoustics and Vibration", "Journal of Computing and Information Technology," "Signal Processing", "Digital Signal Processing", "Electronics Letters", "IET Signal Processing".

LANGUAGE SPOKEN:

- Italian: mother language
- English: very good

WORK EXPERIENCE:

- 1995-1996: Military Service at "I Reggimento Fanteria San Giusto"
- 1997-2003: DSP engineer for Telit Mobile Terminals S.p.A., Trieste. Since October 1998 he has been the project tutor for some audio digital signal processing projects.
- 2001-2004: Contract professor of "Digital Signal Processing" at the University of Trieste, Faculty of Engineering.
- 2003-2004: DSP engineer for NeonSeven s.r.l., Trieste.

- 2004-2018: Associate Professor at the University of Urbino, Department of Pure and Applied Sciences, Urbino.
- 2018-present: Associate Professor at the University of Trieste, Department of Engineering and Architecture, Trieste.

TRAVELS ABROAD:

- June 1995: Cambridge, England, English course at Newham Language Center.
- April-September 1996: Salt Lake City, Utah, visiting scholar at the University of Utah with Prof. V. John Mathews.
- January-April 1997: Salt Lake City, Utah, visiting scholar at the University of Utah with Prof. V. John Mathews.
- September-October 1997: Salt Lake City, Utah, visiting scholar at the University of Utah with Prof. V. John Mathews.

PROFESSIONAL SOCIETY MEMBERSHIP:

- Senior Member of IEEE, the Institute of Electrical and Electronics Engineers, (S'89-A'97-M'02-SM'06).
- Member of EURASIP, the European Association for Signal, Speech and Image Processing, from 2006.

RESEARCH AND DEVELOPMENT EXPERIENCE:

- Digital Signal Processing.
- Volterra and Polynomial Filtering.
- Linear and Nonlinear Adaptive Filtering.
- Equalization and Linearization of Nonlinear Filters.
- Stability of Recursive Polynomial Filters
- Acoustic Echo and Noise Control.
- Nonlinear Active Noise Control.
- Signal processing for road condition monitoring.
- DSP Assembly and C Programming with ADI 21xx, Oak and TI C54xx DSPs.

TEACHING:

Course: Elaborazione Elettronica dei Segnali (Digital Signal Processing).
 Laurea degree: Laurea Triennale in Ingegneria delle Telecomunicazioni
 University: Università degli Studi di Trieste
 Accademic Years: 2001/02--2003/04

Course: Elettronica dei sistemi digitali (Digital Electronics)
 CFU: 6
 Laurea degree: Corso di Laurea in Informatica Applicata
 University: Università di Urbino "Carlo Bo"
 Accademic Years: 2003/04--2010/11

Course: Progettazione automatica dei sistemi elettronici (Electronic Design Automation)
 CFU: 6
 Laurea degree: Corso di Laurea in Informatica Applicata
 University: Università di Urbino "Carlo Bo"
 Accademic Years: 2003/04--2011/12

Course: Digital electronics (online, in English)

CFU: 6

Laurea degree: Corso di Laurea in Informatica Applicata

University: Università di Urbino “Carlo Bo”

Accademic Years: 2005/06--2010/11

Course: Electronic design automation (online, in English)

CFU: 6

Laurea degree: Corso di Laurea in Informatica Applicata

University: Università di Urbino “Carlo Bo”

Accademic Years: 2006/07--2011/12

Course: Elaborazione di Segnali ed Immagini (Digital Signal and Image Processing)
(in presence in Italian, online in English)

CFU: 12

Laurea degree: Corso di Laurea in Informatica Applicata

University: Università di Urbino “Carlo Bo”

Accademic Years: 2011/12–2017/18

Course: Elettronica IV - Elettronica per l'audio e l'acustica (Electronics for Audio and Acoustics)

CFU: 6

Laurea degree: Laurea Magistrale in Ingegneria Elettronica e Informatica

University: Università di Trieste

Accademic Years: 2018/19-2020/21

Course: Elettronica II - Elettronica digitale (Digital Electronics)

CFU: 3

Laurea degree: Laurea Magistrale in Ingegneria Elettronica e Informatica

University: Università di Trieste

Accademic Years: 2018/19-

Course: Sistemi integrati e mobili (Integrated and mobile systems)

CFU: 2

Laurea degree: Laurea Magistrale in Ingegneria Elettronica e Informatica

University: Università di Trieste

Accademic Years: 2018/19-

Course: Elettronica III - Progettazione di sistemi elettronici (Design of electronic systems)

CFU: 6

Laurea degree: Laurea Magistrale in Ingegneria Elettronica e Informatica

University: Università di Trieste

Accademic Years: 2019/20-

Course: Architetture dei sistemi Digitali (Digital system architectures)

CFU: 6

Laurea degree: Laurea Triennale in Ingegneria Elettronica e Informatica

University: Università di Trieste

Accademic Years: 2020/21-

PATENTS:

- [P1] Italian Patent TO 98A 000158, “Filtro per l’Equalizzazione e/o la Linearizzazione Sistemi Non Lineari,” Inventor: Alberto Carini, 25 February 1998.
European Patent: EP 0 939 487 A2, “Filter for the Equalization and/or Linearization of Non-Linear Systems,” Inventor: Alberto Carini, 25 February 1999.
- [P2] Italian Patent TS 2000 A 000017, “Metodo di controllo di cancellatori d’eco acustico per terminali a cornetta e viva-voce,” Inventors: Vojko Pahor and Alberto Carini, 7 November 2000.
International Application: PCT/IT/00517; International Publication Number:WO0239709 (A1) “Control system of acoustic echo cancellers for telephone terminals with handset or handsfree,” Inventors: Vojko Pahor and Alberto Carini, 12 October 2001.

BOOKS CHAPTERS:

- [B1] Alberto Carini, Enzo Mumolo and Giovanni L. Sicuranza, “V-vector Algebra and Volterra filters,” in P. W. Hawkes Ed., *Advances in Imaging & Electron Physics*, Academic Press, San Diego, (United States), Vol.124, pp.1-61, 2003.
- [B2] Giovanni L. Sicuranza, Alberto Carini and Andrea Fermo, “Nonlinear Adaptive Filters for Acoustic Echo Cancellation in Mobile Terminals,” in K. E. Barner, G. R. Arce, Eds., *Nonlinear Signal and Image Processing: Theory, Methods, and Applications*, CRC Press, Boca Raton, FL, (United States), pp.223-256, 2003.
- [B3] Giovanni L. Sicuranza and Alberto Carini, “Nonlinear multichannel active noise control,” in S. Marshall, G. Sicuranza, Eds., *Advances on nonlinear signal and image processing*, Hindawi Publishing Corporation, New York (United States), pp. 169-203, 2006.
- [B4] G. L. Sicuranza and A. Carini, “On a class of nonlinear filters”, in I. Tabus, K. Egiazarian and M. Gabbouj, Eds., *Festschrift in Honor of Jaakko Astola on the Occasion of his 60th Birthday*, TICSP series # 47, Tampere, ISBN 978-952-15-2142-3, ISSN 1456-2774, pp. 115-144, 2009.
- [B5] Ermindo Lanfrancotti and Alberto Carini, “Non-invasive analysis by ultraviolet radiation of ancient manuscripts on parchment support for the detection of faded or no longer visible writings”, in Alessandra Molinari / Michael Dallapiazza (Hg.), *Mittelalterphilologien heute. Eine Standortbestimmung. Teil 1: Die germanischen Philologien*. Koenigshausen & Neumann, pp. 295-309 2016.
- [B6] Alberto Carini, Stefania Cecchi, Simone Orcioni, “Orthogonal LIP Nonlinear Filters”, in Danilo Comminiello and Jose Principe, Eds. “Adaptive Learning Methods for Nonlinear System Modeling”, Butterworth-Heinemann, Oxford, UK, pp.15-46, 2018, DOI: 10.1016/B978-0-12-812976-0.00003-8

PUBLICATIONS IN REFEREED JOURNALS:

- [J1] Enzo Mumolo and Alberto Carini, “Volterra Adaptive Prediction of Speech

- with Application to Waveform Coding,” *European Transactions on Telecommunications*, Vol. 6, No. 6, Nov.-Dec. 1995, pp. 685-693.
- [J2] Enzo Mumolo and Alberto Carini, “A Stability Condition for Adaptive Recursive Second Order Polynomial Filters,” *Signal Processing*, Elsevier, Vol. 54, No. 1, Oct. 1996, pp. 85-90.
- [J3] Alberto Carini and Enzo Mumolo, “Fast Square-Root RLS Adaptive Filtering Algorithms,” *Signal Processing*, Elsevier, Vol. 57, No. 3, Mar. 1997, pp. 233-250
- [J4] Alberto Carini, Giovanni L. Sicuranza and V. John Mathews, “On the Inversion of Certain Nonlinear Systems”, *IEEE Signal Processing Letters*, Vol. 4, No. 12, Dec. 1997, pp. 334-336.
- [J5] Alberto Carini, Enzo Mumolo and Giovanni L. Sicuranza, “V-vector Algebra and its Application to Volterra Adaptive Filtering,” *IEEE Trans. on Circuits and Systems II: Analog and Digital Signal Processing*, Vol. 46, No. 5, May 1999, pp. 585-598.
- [J6] Alberto Carini and Enzo Mumolo, “A Numerically Stable Fast RLS Algorithm for Adaptive Filtering and Prediction Based on the UD Factorization,” *IEEE Trans. on Signal Processing*, Vol. 47, No. 8, Aug. 1999, pp. 2309-2313.
- [J7] Alberto Carini, V. John Mathews and Giovanni L. Sicuranza, “Sufficient Stability Bounds for Slowly Varying Direct-Form Recursive Linear Filters and Their Applications in Adaptive IIR Filters,” *IEEE Trans. on Signal Processing*, Vol. 47, No. 9, Sep. 1999, pp. 2561-2567.
- [J8] Enzo Mumolo and Alberto Carini, “On the Stability of Discrete Time Recursive Volterra Filters,” *IEEE Signal Processing Letters*, Vol. 6, No. 9, Sep. 1999, pp. 230-232
- [J9] Alberto Carini, V. John Mathews and Giovanni L. Sicuranza, “Equalization of Recursive Polynomial Systems,” *IEEE Signal Processing Letters*, Vol. 6, No. 12, Dec. 1999, pp. 312-314.
- [J10] Alberto Carini, Enzo Mumolo and Giovanni L. Sicuranza, “A New Algebraic Description of Adaptive Volterra Filters,” *Signal Processing*, Elsevier, Signal Processing, Vol. 80, No. 3, Feb. 2000, pp. 549-552 .
- [J11] Andrea Fermo, Alberto Carini and Giovanni L. Sicuranza, “Analysis of different low complexity nonlinear filters for acoustic echo cancellation,” *Journal of Computing and Information Technology*, Vol. 8, No. 4, Dec. 2000, pp. 333-339.
- [J12] Vojko Pahor and Alberto Carini, “A Variable Step-Size Control of Adaptation for Acoustic Echo Cancellation Filters,” *European Transactions on Telecommunications*, Vol. 13, No. 2, Mar.-April 2002, pp. 85-93.
- [J13] Andrea Fermo, Alberto Carini and Giovanni L. Sicuranza, “Low Complexity Nonlinear Adaptive Filters for Acoustic Echo Cancellation in GSM Hand-Set Receivers,” *European Transactions on Telecommunications*, Vol. 14, No. 2, pp. 161-169, March/April 2003.
- [J14] A. Carini and G. L. Sicuranza, “Filtered-X Affine Projection algorithms for active noise control using Volterra filters,” in *Special Issue on ‘Nonlinear Signal and Image Processing’ - Part I*, *EURASIP Journal on Applied Signal Processing*, No. 12, 15 September 2004.
- [J15] G. L. Sicuranza and A. Carini, “Filtered-X Affine Projection Algorithm for Multichannel Active Noise Control Using Second-Order Volterra Filters,” *IEEE Signal Processing Letters*, Vol. 11, No. 11, pp. 853-857, Nov. 2004.
- [J16] G. L. Sicuranza and A. Carini, “A Multichannel Hierarchical Approach to

- Adaptive Volterra Filters Employing Filtered-X Affine Projection Algorithms,” *IEEE Transactions on Signal Processing*, Vol. 53, No. 4, pp. 1463-1473, April 2005.
- [J17] A. Carini and G. L. Sicuranza, “Transient and Steady-State Analysis of Filtered-x Affine Projection Algorithms,” *IEEE Transactions on Signal Processing*, Vol. 54, No. 2, pp. 665-678, Feb. 2006, DOI: 10.1109/TSP.2005.861755.
- [J18] A. Carini and G. L. Sicuranza, “Analysis of Transient and Steady-State Behavior of a Multichannel Filtered-X Partial-Error Affine Projection Algorithm”, *EURASIP Journal on Audio, Speech, and Music Processing*, vol. 2007, Article ID 31314, 15 pages, 2007. DOI:10.1155/2007/31314.
- [J19] A. Carini and G. L. Sicuranza, “Optimal Regularization Parameter of the Multichannel Filtered-X Affine Projection Algorithm,” *IEEE Transactions on Signal Processing*, Vol. 55, No. 10, pp. 4882-4895, Oct. 2007, DOI: 10.1109/TSP.2007.896113.
- [J20] A. Carini and S. Malatini, “Optimal Variable Step-Size NLMS Algorithms With Auxiliary Noise Power Scheduling for Feedforward Active Noise Control,” *IEEE Transactions on Audio, Speech and Language Processing*, Vol. 16, No 8, pp. 1383-1395, Nov. 2008, DOI: 10.1109/TASL.2008.2002757.
- [J21] A. Carini, “Efficient NLMS and RLS Algorithms for Perfect and Imperfect Periodic Sequences”, *IEEE Transactions on Signal Processing*, vol. 58, No. 4, pp. 2048-2059, Apr. 2010, DOI: 10.1109/TSP.2009.2039821.
- [J22] S. Cecchi, L. Palestini, P. Peretti, L. Romoli, F. Piazza, and A. Carini, “Evaluation of a Multipoint Equalization System Based on Impulse Response Prototype Extraction”, *Journal Audio Engineering Society*, Vol. 59, Issue 3, pp. 110-123, Mar. 2011.
- [J23] G. L. Sicuranza, and A. Carini: “A generalized FLANN filter for nonlinear active noise control”, *IEEE Trans. Audio, Speech, and Language Processing*, Vol. 19, Issue 8, pp. 2412 - 2417, Nov. 2011, DOI: 10.1109/TASL.2011.2136336
- [J24] A. Carini, S. Cecchi, F. Piazza, I. Omicciolo, G. Sicuranza, “Multiple Position Room Response Equalization in Frequency Domain,” *IEEE Trans. Audio, Speech, and Language Processing*, Vol. 20, Issue 1, pp. 122 - 135, Jan. 2012, DOI: 10.1109/TASL.2011.2158420
- [J25] G. L. Sicuranza, and A. Carini: “On the BIBO stability condition of adaptive recursive FLANN filters with application to nonlinear active noise control”, *IEEE Trans. Audio, Speech, and Language Processing*, Vol. 20, Issue 1, pp. 234 - 245, Jan. 2012, DOI: 10.1109/TASL.2011.2159788.
- [J26] A. Carini, G. L. Sicuranza, and V. J. Mathews, “Efficient adaptive identification of linear-in-the-parameters nonlinear filters using periodic input sequences,” *Signal Processing*, Vol. 93, no. 5, May 2013, pp. 1210-1220, <http://dx.doi.org/10.1016/j.sigpro.2012.12.012>
- [J27] A. Carini and G. L. Sicuranza, “Fourier nonlinear filters,” *Signal Processing*, Vol. 94, Jan. 2014, pp. 183-194, <http://dx.doi.org/10.1016/j.sigpro.2013.06.018>
- [J28] G. L. Sicuranza and A. Carini, “Unconstrained linear combination of even mirror Fourier nonlinear filters,” *IET Signal Processing*, Vol. 8, Issue 6, August 2014, pp. 612-621, DOI: 10.1049/iet-spr.2013.0256
- [J29] S. Cecchi, L. Romoli, A. Carini, F. Piazza, “A Multichannel and Multiple Position Adaptive Room Response Equalizer in Warped Domain: Real-time Implementation and Performance Evaluation,” *Applied Acoustics*, Vol. 82,

- 2014, pp. 28-37, <http://dx.doi.org/10.1016/j.apacoust.2014.02.011>
- [J30] A. Carini and G. L. Sicuranza, "Perfect Periodic Sequences for Even Mirror Fourier Nonlinear Filters," *Signal Processing*, Vol. 104, Nov. 2014, pp. 80-93, <http://dx.doi.org/10.1016/j.sigpro.2014.03.046>
- [J31] A. Carini and G. L. Sicuranza, "Recursive even mirror Fourier nonlinear filters and simplified structures," *IEEE Trans. on Signal Processing*, Vol. 62, Issue 24, Dec. 2014, pp. 6534-6544, <http://dx.doi.org/10.1109/TSP.2014.2367467>
- [J32] A. Carini, S. Cecchi, L. Romoli and G. L. Sicuranza, "Legendre nonlinear filters," *Signal Processing*, Vol. 109, April 2015, pp. 84-94, <http://dx.doi.org/10.1016/j.sigpro.2014.10.037>
- [J33] G. L. Sicuranza and A. Carini, "Nonlinear system identification using quasi-perfect periodic sequences," *Signal Processing*, Volume 120, March 2016, Pages 174-184, <http://dx.doi.org/10.1016/j.sigpro.2015.08.018>
- [J34] A. Carini and G. L. Sicuranza, "A study about Chebyshev nonlinear filters", *Signal Processing*, Volume 120, March 2016, Pages 174-184, <http://dx.doi.org/10.1016/j.sigpro.2015.11.008>
- [J35] A. Carini, S. Cecchi, and L. Romoli, "Robust Room Impulse Response Measurement Using Perfect Sequences for Legendre Nonlinear Filters," *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, Volume 24, Issue 11, Nov. 2016, Pages 1969-1982, <http://dx.doi.org/10.1109/TASLP.2016.2593803>
- [J36] G. Alessandrini, A. Carini A., E. Lattanzi, V. Freschi, A. Bogliolo, "A Study on the Influence of Speed on Road Roughness Sensing: The SmartRoadSense Case", *Sensors*, Vol.17, no.2, Feb. 2017, <http://doi.org/10.3390/s17020305>
- [J37] A. Carini, G. L. Sicuranza, "BIBO-stable recursive functional link polynomial filters" *IEEE Transactions on Signal Processing*, Volume 65 Issue 6, 2017, Pages 1595 - 1606, <http://doi.org/10.1109/TSP.2016.2641395>
- [J38] S. Cecchi, A. Carini, S. Spors, "Room Response Equalization—A Review" *Applied Sciences*, Volume 8, no. 1, 2018, article number: 16, <http://doi.org/10.3390/app8010016>
- [J39] S. Orcioni, A. Terenzi, S. Cecchi, F. Piazza, A. Carini, "Identification of Volterra Models of Tube Audio Devices using Multiple-variance Method", *Journal of the Audio Engineering Society*, Volume 66 Issue 10 pp. 823-838; October 2018, <https://doi.org/10.17743/jaes.2018.0046>
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