

Publications 2015-2021

International Journals (IJ)

1. V. Bruni, D. Vitulano, A robust perception based method for iris tracking, **Pattern Recognition Letters**, Elsevier Science, vol. 57, pp. 74-80, May 2015. ([submitted version](#), published version: <http://dx.doi.org/10.1016/j.patrec.2014.09.001>)
2. M. C. Basile, V. Bruni, F. Buccolini, D. De Canditiis, S. Tagliaferri, and D. Vitulano, Automatic and Noninvasive Indoor Air Quality Control in HVAC Systems, **Journal of Industrial Mathematics**, Hindawi, vol. 2016, 2016 <https://doi.org/10.1155/2016/9674387>
3. V. Bruni, D. Vitulano, An entropy based approach for SSIM speed up, **Signal Processing**, Elsevier Science, vol. 135, pp. 198-209, June 2017. ([submitted version](#), published version: <http://dx.doi.org/10.1016/j.sigpro.2017.01.007>)
4. V. Bruni, M. Tartaglione, D. Vitulano, A fast and robust spectrogram reassignment method, **Mathematics**, MDPI, vol. 4 no. 4, 2019 (published version: <https://doi.org/10.3390/math7040358>)
5. V. Bruni, L. Della Cioppa, D. Vitulano, An Automatic and Parameter-Free Information-Based Method for Sparse Representation in Wavelet Bases, **Mathematics and Computers in Simulation**, Elsevier, vol. 176, pp. 73-95, 2020 ([accepted version](#), published version: <http://dx.doi.org/10.1016/j.matcom.2019.09.016>)
6. V. Bruni, M. Tartaglione, D. Vitulano, An iterative approach for spectrogram reassignment of frequency modulated multicomponent signals, **Mathematics and Computers in Simulation**, Elsevier, vol. 176, pp. 96-119, 2020 ([accepted version](#), published version: <http://dx.doi.org/10.1016/j.matcom.2019.11.006>)
7. V. Bruni, M. Tartaglione, D. Vitulano, Radon spectrogram-based approach for automatic IFs separation, **Eurasip Journal on Advances in Signal Processing**, Springer, 13 (2020)., 2020 <http://dx.doi.org/10.1186/s13634-020-00673-8>
8. V. Bruni, M. Tartaglione, D. Vitulano, A signal complexity-based approach for am–fm signal modes counting, **Mathematics MDPI**, 8(12), pp. 1–33, 2020 <https://doi.org/10.3390/math8122170>
9. V. Bruni, M. Tartaglione, D. Vitulano, Coherence of PRNU weighted estimations for improved source camera identification, to appear in **Multimedia Tools and Applications**, Springer, 2021, doi 10.1007/s11042-020-10477-5 <http://dx.doi.org/10.1007/s11042-020-10477-5>
10. V. Bruni, M. Tartaglione, D. Vitulano, A pde-Based Analysis of the Spectrogram Image for Instantaneous Frequency Estimation, **Mathematics MDPI**, 9(3), pp. 1–33, 2021 <http://dx.doi.org/10.3390/math9030247>
11. A. Tanga, V. Giliberti, F. Vitucci, D. Vitulano, V. Bruni, A. Rossetti, G. Messina, M. Daniele, G. Ruocco, M. Ortolani, Terahertz Scattering Microscopy For Dermatology Diagnostics, **JPHYS PHOTONICS**. - ISSN 2515-7647, 2021

International Conferences (IC - peer review)

1. V. Bruni, G. Ramella, D. Vitulano, Automatic Perceptual Color Quantization of Dermoscopic Images, Proceedings of the 10th International Conference on Computer Vision Theory and Applications VISAPP 2015, SciTePress, Lisbona, pp. 323-330, March 2015.
2. V. Bruni, D. Panella, D. Vitulano, Non Local Means Image Denoising using Noise-Adaptive SSIM, Proc. of **IEEE-EURASIP International Conference EUSIPCO 2015**, pp. 2326-2330, Nice, France, Sept. 2015.
3. V. Bruni, L. Tarchi, I. Selesnick, D. Vitulano, An adaptive perception-based image preprocessing method, Proc. of **IEEE-EURASIP International Conference EUSIPCO 2015**, pp. 2331-2335, Nice, France, Sept. 2015.

4. F. Angelini, V. Bruni, I. Selesnick, D. Vitulano, Adaptive Scale Selection for Multiscale Image Denoising, Proc. of ACIVS 2015, Catania, Italy, special issue in **Lecture Notes in Computer Science**, vol. 9386, pp. 81-92, 2015.
5. V. Bruni, D. Vitulano, An entropy-based model for a fast computation of SSIM, Proc. of VISAPP 2016, Rome, Italy, Feb. 2016.
6. V. Bruni, D. Vitulano, Jensen Shannon divergence as reduced reference measure for image denoising, Proc. of ACIVS 2016, Lecce, Italy, Oct. 2016, special issue in **Lecture Notes in Computer Science**, vol. 10016, pp. 311-323, 2016.
7. M. C. Basile, V. Bruni, F. Buccolini, D. De Canditiis, S. Tagliaferri, D. Vitulano, Non invasive indoor air quality control through HVAC systems cleaning state, Proceedings of the Int. Conference on Sustainable Housing 2016, Porto, Portugal, Nov. 2016.
8. V. Bruni, G. Ramella, D. Vitulano, Perceptual-based Color Quantization, Proceedings of the Int. Conference on Image Analysis and Processing, Catania, Italy, Sept. 2017, special issue in **Lecture Notes in Computer Science**, vol. 10484, p. 671-681, 2017.
9. M. C. Basile, V. Bruni, D. Vitulano, A CSF-based preprocessing method for image deblurring, Proc. of ACIVS 2017, Anversa, Belgium, Sept. 2017, special issue in **Lecture Notes in Computer Science**, Springer, vol. 10617, p. 602-614, 2017.
10. F. Angelini, V. Bruni, I. Selesnick, D. Vitulano, A Rational-dilation Wavelet Transform with Signal Dependent Dilation Factor. In: IMACS Series in Computational and Applied Mathematics, the MASCOT2015 Book of Proceedings. vol. 20, p. 1-10, Daniela Mansutti, Rosa Maria Spitaleri eds, Rome, 2017.
11. V. Bruni, M. Tartaglione, D. Vitulano, On the Time-Frequency Reassignment of Interfering Modes in Multicomponent FM Signals, Proc. of EURASIP International Conference EUSIPCO 2018, Rome, September 2018
12. V. Bruni, L. Della Cioppa, D. Vitulano, An Entropy-Based Approach for Shape Description, to Proc. of EURASIP International Conference EUSIPCO 2018, Rome, September 2018
13. V. Bruni, D. Vitulano, Image denoising using collaborative patch-based and local methods, **Lecture notes in Computer Science** vol. 10884, ICISP 2018
14. V. Bruni, A. Salvi, D. Vitulano, A wavelet based image fusion method using local multiscale image regularity, **Lecture notes in Computer Science** vol. 1182, ACIVS 2018
15. V. Bruni, M. Tartaglione, D. Vitulano, "An iterative spectrogram reassignment of frequency modulated multicomponent signals", to appear in Proceedings of MASCOT 2018
16. V. Bruni, L. Della Cioppa, D. Vitulano, "A normalized information based method for efficient signal representations", to appear in Proceedings of MASCOT 2018
17. V. Bruni, G. Ramella, D. Vitulano, An Adaptive Copy-Move Forgery Detection Using Wavelet Coefficients Multiscale Decay, **Lecture notes in Computer Science** vol. 11678, CAIP 2019, Salerno, Italy, September 3-5, 2019, Proceedings, Part I, 469-480 ([submitted version](http://dx.doi.org/10.1007/978-3-030-29888-3_38), published version: http://dx.doi.org/10.1007/978-3-030-29888-3_38)
18. V. Bruni, A. Salvi, D. Vitulano, Joint Correlation Measurements for PRNU-Based Source Identification, **Lecture notes in Computer Science** vol. 11678, CAIP 2019, Salerno, Italy, September 3-5, 2019, Proceedings, Part II, 245-256
19. V. Bruni, D. Vitulano, The role of complexity in visual perception: some results and perspectives, IARIA Proc. of VISUAL 2019, Rome, July 2019
20. V. Bruni, D. Vitulano, The Rational Dilation Wavelet Transform: a flexible tool for perception-inspired signal and image processing, IARIA Proc. of VISUAL 2019, Rome, July 2019
21. V. Bruni, M. Tartaglione, D. Vitulano, Instantaneous frequency modes separation via a Spectrogram-Radon based approach, Proc. of Proceedings of the 11th International Symposium on

Image and Signal Processing and Analysis (ISPA 2019) - Special Session on Methods and Applications of Time-Frequency Signal Analysis, Dubrovnik, Croatia, September 2019

22. V. Bruni, D. Vitulano, SSIM based Signature of Facial Micro-Expressions, **Lecture Notes in Computer Science** – Proc. of ICIAR 2020, vol. 12131 LNCS, pp. 267-279, 2020

23. V. Bruni, L. Della Cioppa, D. Vitulano, A multiscale energy-based time-domain approach for interference detection in non-stationary signals, **Lecture Notes in Computer Science** – Proc. of ICIAR 2020, vol. 12132 LNCS, pp. 36-47, 2020