

Curriculum vitae of Simone Milani

(updated on Apr. 2025)

General Information

First Name: Simone
Last Name: Milani

Contact Information:

Simone Milani, Ph.D.
Via Gradenigo 6/B
35131 Padova
Italy

Phone: +39 049 827 7641
e-mail: simone.milani@dei.unipd.it,
web-site: <http://www.dei.unipd.it/~sim1mil>

Short Biographical and Research Information

Simone Milani received his Laurea Degree (5 years course) with honors from the University of Padova, Italy, on December 2002. In 2003 he won a research scholarship within the MiUR project FIRB PRIMO to investigate about the topic "Rate Control algorithms for the H.264/AVC coder". In 2004 he was enrolled in the Ph.D. course in Electronics and Telecommunication Engineering at the Department of Information Engineering (DEI) of the University of Padova under the supervision of G. A. Mian. His research was focused on video source coding and video transmission over lossy networks. He also collaborated with STMicroelectronics, Agrate Brianza (MI), Italy, investigating optimization algorithms for the H.264/AVC coder. On August 2005 he joined the "Education Abroad Program" of the University of California and spent ten months at the University of California - Berkeley, Berkeley, CA, USA. In this period, he joined the research group of prof. K. Ramchandran and worked on Distributed Source Coding applied to robust video transmission. On December 2006 he finished his Ph.D. course, and he started working with prof. G. Calvagno within the PRIN project 2005 "Reliable Multimedia Transmission over non-Reliable Networks" in collaboration with the University of Udine, Italy, and the University of Genova, Italy. On August 2007, he won a position as research associate at the University of Udine, Udine, Italy, for the research project "Robust transmission using cross-packet FEC coding", which concluded the PRIN 2005 work. He was enrolled at the University of Udine until December 2007 working with prof. Roberto Rinaldo and dott. Riccardo Bernardini on cross-layer optimization strategies for the video transmission over IEEE 802.11e networks. As a result of this work, in 2008 he won the Fabio Carassa Award at the GTTI Annual Meeting 2008. From January 2008 till June 2011, he was research associate at the University of Padova working with prof. Giancarlo Calvagno and Guido Cortelazzo on robust transmission of video data. More precisely, he focused his research on P2P streaming of video sequences and on the optimization of 3D video transmission over faulty channels. In September 2011, he won the Carlo Offelli 2011 Award given by the Dept. of Information Engineering of the University of Padova to the Best Young Researcher. From July 2011 to April 2014, he was enrolled as research associate at the Politecnico di Milano, Milan, Italy, within the EU FP7 research project REWIND working on reverse engineering of audio-visual content data with prof. Stefano Tubaro. Several analysis tools were proposed including an award-winning multiple compression detector (Top 10% Paper award at the conference MMSP 2012).

At the moment, he is enrolled as assistant professor at the University of Padova, Italy. His main research topics are digital signal processing, source coding, joint source-channel coding, robust video transmission over lossy packet networks, distributed source coding, 3D video transmission, 3D video compression, reverse engineering of multimedia data. At the moment his research is also focused on acquisition and processing of 3D scenes for video surveillance, robotics and automatic controls.

He is also a IEEE member of Information Theory and Signal Processing Societies and he has also been a reviewer for IEEE Transactions on Circuits and Systems for Video Technology, International Journal of Digital Multimedia Broadcasting, IEEE Transactions on Information Forensics and Security, EURASIP Journal on Advances in Signal Processing, Recent Patents on Computer Science, and several other international conferences. Since August 2010 he is also Associate Editor of the Journal of Next Generation Information Technology and of the International Journal of Information Processing and Management. He has also been Area Chair and Session Chair for several editions of the conferences IEEE ICASSP and ICIP, as well as for EUSIPCO.

He is member of the Ethical committee of Human Inspired Technology (HIT) center of the University of Padova. He's also member of the Information Forensics and Security TC of the IEEE Signal Processing Society. From 2018 to 2020 he has also been member of IEEE SPS Regional Committee (Region 8).

His research concerns the acquisition, processing, coding and the transmission of video sequences across different types of networks paying a specific attention for wireless networks. In these years, his activities involved

- Multimedia forensics

- Image/Video/Audio/3D Analysis
- Image/Video/Audio/3D compression
- Image/Video/Audio/3D transmission
- Augmented Reality applications
- Virtual reality applications
- Deep learning models for forensic application
- Deep learning model for 3D processing
- Learned compression scheme
- Anomaly detection
- Denoising of 3D models acquired via infrared sensors
- Denoising of images for object recognition algorithms
- Image processing for 3D reconstruction
- Reverse engineering of audio-visual data

At the moment, his work concerns the design of efficient algorithms for the acquisition/classification/transmission of 3D data in augmented and virtual reality applications.

His also working on the reverse engineering of audio visual data, i.e. the reconstruction of the processing and compression operations performed on a multimedia content. Such activity involves the investigation of innovative AI strategies such as deep learning architectures (CNN, RNN, etc.).

Studies & Research

Institution	Period month/year	Description
Dept. of Information Engineering (DEI) University of Padova, Padova, Italy	03/2020-now	Associate professor
Dept. of Information Engineering (DEI) University of Padova, Padova, Italy	03/2017- 02/2020	Assistant professor RTDb
Dept. of Information Engineering (DEI) University of Padova, Padova, Italy	05/2014- 02/2017	Assistant professor RTDa
Dipartimento di Elettronica e Informazione (DEI) Politecnico di Milano, Milan, Italy	07/2011- 04/2014	Research associate on “Reverse engineering of audio-visual content data”. Rep. n° 98/11 Prot. n° 582.
Dept. of Information Engineering (DEI) University of Padova, Padova, Italy	02/2010- 06/2011	Research associate on “Development of algorithms for robust transmission of 3D video signals over unreliable channels”. Bando DEI 93/2009.
Dept. of Information Engineering (DEI) University of Padova, Padova, Italy	02/2008- 01/2010	Research associate on “Analysis and implementation of a scalable video coder for transmission over heterogeneous unreliable networks based on distributed coding principles” – Prot. CPDR075318.
Dipartimento di Ingegneria Elettrica, Gestionale e Meccanica (DIEGM) University of Udine, Udine, Italy	09/2007- 12/2007	Research associate on “Robust transmission using cross-packet FEC coding” within the project PRIN 2005 “Reliable Multimedia Transmission over non-Reliable Networks”.
Dept. of Information Engineering (DEI) University of Padova, Padova, Italy	01/2007- 08/2007	Research scholarship on “Robust transmission using cross-packet FEC coding” within the project PRIN 2005 “Reliable Multimedia Transmission over non-Reliable Networks”.
Dept. of Electrical Engineering and Computer Science (EECS) University of California - Berkeley, Berkeley, CA, USA	08/2005- 06/2006	Joined the exchange program EAP and spent 10 months at UC Berkeley, CA, USA. Research activity on Distributed Source Coding under the supervision of prof. K. Ramchandran.

Dept. of Information Engineering (DEI) University of Padova, Padova, Italy	01/2004- 12/2006	PhD course in Electronic Engineering and Telecommunications at the University of Padova, Italy, under the supervision of prof. G.A. Mian. [Thesis: <i>Source and Joint Source-Channel Coding for Video Transmission over Lossy Networks</i>]
Dept. of Information Engineering (DEI) University of Padova, Padova, Italy	02/2003- 12/2003	Research scholarship on “Rate control algorithms per H.26L” within the project FIRB PRIMO
University of Padova, Padova, Italy	10/1997- 12/2002	Laurea Degree in Telecommunication Engineering (5 years program). [Thesis: <i>Rate control algorithms for H.264</i>] Tutor: prof. G.A. Mian Final score: 110/110 cum laude
L.S.S. “Tito Lucrezio Caro”, Cittadella (PD), division of Camposampiero (PD), Italy	09/1992- 06/1997	High school diploma (Maturità Scientifica) Final score: 60/60

Languages

Language	Reading and Writing	Spoken
Italian	native language	native language
English	very good	very good
French	simple	simple
Spanish	simple	simple

Awards

- “Francesco Carassa” Best Paper Award within the “Signal Processing and Remote Sensing” session at the GTTI 2008 Annual Meeting for the work Simone Milani (University of Padova) and Pamela Zontone (University of Udine), “Cross-layer Optimization Strategies for Video Transmission Over IEEE 802.11e Networks”.
- Candidate for the Best Paper Award at ACM Multimedia 2010 – Main conference for the paper “A Cognitive Approach for Effective Coding and Transmission of 3D Video”.
- Candidate for the Best Paper Award at the 2010 ACM Workshop on Advanced Video Streaming Techniques for Peer-to-peer Networks and Social Networking for the paper “Improving Quality-of-Experience for Multiple Description Video Transmission in Peer-To-Peer Networks” .
- Candidate for the Award “Carlo Offelli 2010” given by the Dept. of Information Engineering of the University of Padova to the Best Young Researcher.
- Winner of the Award “Carlo Offelli 2011” given by the Dept. of Information Engineering of the University of Padova to the Best Young Researcher.
- Winner of the “Top 10% Paper Award” at the conference MMSP 2012 for the work “Multiple Compression Detection for Video Sequences”, authors: S. Milani, P. Bestagini, M. Tagliasacchi, S. Tubaro
- Winner of the “Top 10% Paper Award” at the conference MMSP 2013 for the work “Local tampering detection in video sequences”, autori: P. Bestagini, S. Milani, M. Tagliasacchi, S. Tubaro
- Candidate for the Best Paper Award at ICIP 2013 for the paper "Identification of the Motion Estimation Strategy Using Eigenalgorithms", authors: S. Milani, M. Tagliasacchi, S. Tubaro
- Winner of the “Best Paper Award” at the conference EUVIP 2014 for the work

"Image phylogeny through dissimilarity metrics fusion," autori: Melloni, A.; Bestagini, P.; Milani, S.; Tagliasacchi, M.; Rocha, A.; Tubaro, S.

- Candidate for the Best Paper Award at ICIP 2017 for the paper " Improving 3D reconstruction tracks using denoised euclidean distance matrices ", authors: S. Milani.

Work experiences

Employer	Position	Period month/year	Description
University of Udine	Collaborator	10/2011-09/2013	Research activity/Software development within the POR FESR 2007 -- 2013, Friuli Venezia Giulia Regional Project ``Barcotica."
Bluewind, Castelfranco Veneto (TV)	Consultant	08/2007	Consulting activity on coding standards for video transmission
STMicroelectronics, Agrate (MI)	Collaborator	04/2003-04/2005	Consulting activity on optimization techniques for the H.264/AVC standard.
STMicroelectronics, Agrate (MI)	Stage student	07/2002-12/2002	Thesis Internship with STMicroelectronics carried on at DEI –University of Padova, Italy

Teaching Activities

Institution	Position	Period	Description
University of Padova	Main lecturer	10/2023-now	Course “Digital Forensics and Biometrics”– Master degree in Cybersecurity (teaching language: English)
University of Padova	Main lecturer	03/2024-now	Course “3D Vision and eXtended Reality”– Master degree in ICT for Internet and Multimedia (teaching language: English)
University of Padova	Main lecturer	03/2023-now	Course “Multimedia and Data Forensics”– Bachelor degree in “Diritto e Tecnologia” (teaching language: English)
University of Padova	Main lecturer	03/2021-2023	Course “Biometrics”– Master degree in Cybersecurity (teaching language: English)
University of Padova	Main lecturer	03/2020-2022	Course “Immersive Technologies”– Master degree in Communication Strategies (teaching language: English)
University of Padova	Main lecturer	10/2018-now	Course “Digital Forensics”– Master degree in ICT for Internet and Multimedia (teaching language: English)
University of Padova	Main lecturer	10/2017-now	Course “3D Augmented Reality”– Master degree in ICT for Internet and Multimedia (teaching language: English)
University of Padova	Additional lecturer	10/2016-01/2017	Course of Telecommunications laboratory– Bachelor degree on Telecommunications engineering (teaching language: Italian)
University of Padova	Main lecturer	03/2016-03/2017	Course “Computer vision and 3D Graphics”– Master degree on Telecommunications engineering (teaching language: English)
University of Padova	Additional lecturer	03/2015-now	Course of Telecommunications laboratory– Bachelor degree on Telecommunications engineering (teaching language: Italian)

University of Padova	Main lecturer	03/2015-02/2016	Course on Source coding – Master degree on Telecommunications engineering (teaching language: English)
Politecnico di Milano	Main lecturer	02/2014 – 03/2014	Ph.D. Course on “Game Theory to communication networks and other distributed problems” (teaching language: English) – Telecommunications
Politecnico di Milano	Main lecturer	02/2013 – 03/2013	Ph.D. Course on “Game Theory to communication networks and other distributed problems” (teaching language: English) – Telecommunications
Politecnico di Milano	Assistant	02/2012 – 01/2013	Exercises for the BA course “Digital Signal Processing” (teaching language: Italian)
Politecnico di Milano	Main lecturer	03/01/12	Ph.D. Course on “Game Theory to communication networks and other distributed problems” (teaching language: English) – Telecommunications
University of Padova	Assistant	Autumn 2006	Lab exercise sessions for the Digital Signal Processing course with prof. G. M. Cortelazzo (teaching language: Italian)
University of Padova	Assistant	Autumn 2004	Lab exercise sessions for the Digital Signal Processing course with prof. G. A. Mian (teaching language: Italian).

List of Publications of Simone Milani

Published and accepted works (year 2025)

Journals

[134] E. Camuffo, U. Michieli, S. Milani, "Learning From Mistakes: Self-Regularizing Hierarchical Representations in Point Cloud Semantic Segmentation". *IEEE Trans. Multim.* 27: 978-989 (2025)

Published and accepted works (year 2024)

Journals

[133] S. Cvasin, D. Mari, S. Milani, M. Conti, "Fingerprint membership and identity inference against generative adversarial networks". *Pattern Recognit. Lett.* 185: 184-189 (2024).

Conferences

[132] G. Agnetti, A. Migliorati, D. Mari, T. Bianchi, S. Milani and E. Magli, "Ternary Neural Networks for Gait Identification in Wearable Devices," 2024 IEEE International Workshop on Information Forensics and Security (WIFS), Rome, Italy, 2024, pp. 1-6, doi: 10.1109/WIFS61860.2024.10810715.

[131] D. Mari, S. Cvasin, S. Milani and M. Conti, "Effectiveness of learning-based image codecs on fingerprint storage," 2024 IEEE International Workshop on Information Forensics and Security (WIFS), Rome, Italy, 2024, pp. 1-6, doi: 10.1109/WIFS61860.2024.10810674.

[130] D. Mari, A. F. R. Guarda, N. M. M. Rodrigues, S. Milani and F. Pereira, "Point Cloud Geometry Scalable Coding with a Quality-Conditioned Latents Probability Estimator," 2024 IEEE International Conference on Image Processing (ICIP), Abu Dhabi, United Arab Emirates, 2024, pp. 3410-3416, doi: 10.1109/ICIP51287.2024.10647489.

[129] E. Camuffo, U. Michieli, S. Milani, J. Moon and M. Ozay, "Enhanced Model Robustness to Input Corruptions by Per-corruption Adaptation of Normalization Statistics," 2024 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Abu Dhabi, United Arab Emirates, 2024, pp. 11558-11565, doi: 10.1109/IROS58592.2024.10802512.

Reports

[128] D. Mari, S. Milani, "Enhancing the Rate-Distortion-Perception Flexibility of Learned Image Codecs with Conditional Diffusion Decoders". *CoRR* abs/2403.02887 (2024)

Published and accepted works (year 2023)

Journals

[127] D. Mari, E. Camuffo, S. Milani, "CACTUS: Content-Aware Compression and Transmission Using Semantics for Automotive LiDAR Data". *MDPI Sensors* 23(12): 5611 (2023)

[126] S. Eleuch, N. Khouja, S. Milani, T. Erseghe and F. Tlili, "A Distributed Rate-Control Approach to Reduce Communication Burdens in VSNs," in *IEEE Access*, vol. 11, pp. 1011-1022, 2023, doi: 10.1109/ACCESS.2022.3232393.

Conferences

[125] D. Campagnolo, E. Camuffo, U. Michieli, P. Borin, S. Milani, A. Giordano, "Fully Automated Scan-to-BIM Via Point Cloud Instance Segmentation". *Proc. of ICIP 2023*, pp. 291-295

[124] D. Mari, D. Salvi, P. Bestagini, S. Milani, "All-for-One and One-for-All: Deep Learning-Based Feature Fusion for Synthetic Speech Detection". *PKDD/ECML Workshops (2) 2023*: 469-479

[123] E. Camuffo and S. Milani, "Continual Learning for LiDAR Semantic Segmentation: Class-Incremental and Coarse-to-Fine strategies on Sparse Data," 2023 IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops (CVPRW), Vancouver, BC, Canada, 2023, pp. 2447-2456, doi: 10.1109/CVPRW59228.2023.00243.

Published works (year 2022)

Journals

[122] N. Pretto, N. Dalla Pozza, A. Padoan, A. Chmiel, K. J. Werner, A. Micalizzi, E. Schubert, A. Roda, S. Milani, and S. Canazza. A Workflow and Digital Filters for Correcting Speed and Equalization Errors on Digitized Audio Open-Reel Magnetic Tapes. *Journal of the Audio Engineering Society* 70(6), 495-509, 2022.

[121] S. Daniele Ruggiu, Vincent Blok, Christopher Coenen, Christos Kalloniatis, Angeliki Kitsiou, Aikaterini-Georgia Mavroei, Simone Milani & Andrea Sitzia (2022) Responsible innovation at work: gamification, public engagement, and privacy by design, *Journal of Responsible Innovation*, DOI: 10.1080/23299460.2022.2076985

[120] Salma Eleuch, Nadia Khouja, Simone Milani, Tomaso Erseghe, Fethi Tlili, "A Study on the Impact of Multiview Distributed Feature Coding on a Multicamera Vehicle Tracking System at Roundabouts". *IEEE Access* 10: 39502-39517 (2022)

[119] Camuffo E, Mari D, Milani S. Recent Advancements in Learning Algorithms for Point Clouds: An Updated Overview. *Sensors (Basel)*. 2022 Feb 10;22(4):1357. doi: 10.3390/s22041357. PMID: 35214254; PMCID: PMC8963024.

Conferences

- [118] D. Mari, F. Latora and S. Milani, "The Sound of Silence: Efficiency of First Digit Features in Synthetic Audio Detection," 2022 IEEE International Workshop on Information Forensics and Security (WIFS), Shanghai, China, 2022, pp. 1-6, doi: 10.1109/WIFS55849.2022.9975404.
- [117] D. Mari, F. Latora and S. Milani, "The Sound of Silence: Efficiency of First Digit Features in Synthetic Audio Detection," 2022 IEEE International Workshop on Information Forensics and Security (WIFS), Shanghai, China, 2022, pp. 1-6, doi: 10.1109/WIFS55849.2022.9975404.
- [116] D. Mari, F. Latora and S. Milani, "The Sound of Silence: Efficiency of First Digit Features in Synthetic Audio Detection," 2022 IEEE International Workshop on Information Forensics and Security (WIFS), Shanghai, China, 2022, pp. 1-6, doi: 10.1109/WIFS55849.2022.9975404.
- [115] Matteo Cardaioli, Stefano Ceconello, Mauro Conti, Simone Milani, Stjepan Picek, Eugen Saraci, Hand Me Your PIN! Inferring ATM PINs of Users Typing with a Covered Hand. USENIX Security Symposium 2022: 1687-1704

Published works (year 2021)

Journals

- [114] S. Verde, E. D. Cannas, P. Bestagini, S. Milani, G. Calvagno and S. Tubaro, "FOCAL: A Forgery Localization Framework based on Video Coding Self-Consistency," in IEEE Open Journal of Signal Processing, doi: 10.1109/OJSP.2021.3074298.
- [113] Simone Milani, A distributed source autoencoder of local visual descriptors for 3D reconstruction, Pattern Recognition Letters, Volume 146, 2021, Pages 193-199, ISSN 0167-8655, Doi: 10.1016/j.patrec.2021.03.019.

Conferences

- [112] Niccolò Pretto, Nadir Dalla Pozza, Alberto Padoan, Anthony Chmiel, Kurt James Werner, Alessandra Micalizzi, Emery Schubert, Antonio Rodà, Simone Milani and Sergio Canazza, "A workflow and novel digital filters for compensating speed and equalization errors on digitized audio open-reel tapes", Proc. Of AudioMostly 2021, Trento, Italy, Sep. 2021, pp. 224-231.
- [111] Daniele Lorenzi, Minh Nguyen, Farzad Tashtarian, Simone Milani, Hermann Hellwagner, and Christian Timmerer. 2021. Days of future past: an optimization-based adaptive bitrate algorithm over HTTP/3. In Proceedings of the 2021 Workshop on Evolution, Performance and Interoperability of QUIC (EPIQ '21). Association for Computing Machinery, New York, NY, USA, 8–14. <https://doi.org/10.1145/3488660.3493802>
- [110] S. Milani, "ADAE: Adversarial Distributed Source Autoencoder For Point Cloud Compression," 2021 IEEE International Conference on Image Processing (ICIP), 2021, pp. 3078-3082, doi: 10.1109/ICIP42928.2021.9506750.
- [109] D. Mari et al., "Looking Through Walls: Inferring Scenes from Video-Surveillance Encrypted Traffic," ICASSP 2021 - 2021 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2021, pp. 2595-2599, doi: 10.1109/ICASSP39728.2021.9414391.
- [108] Notaro, A. Capraro, F., Pesavento, M., Milani, S., Busà, M.G. (2021). Effectiveness of VR immersive applications for public speaking enhancement, Accepted at Image Quality and System Performance Conference, IST Electronic Imaging 2021 , 294-1-6

Published works (year 2020)

Journals

- [107] S. Verde, T. Resek, S. Milani and A. Rocha, "Ground-to-Aerial Viewpoint Localization via Landmark Graphs Matching," in IEEE Signal Processing Letters, vol. 27, pp. 1490-1494, 2020, doi: 10.1109/LSP.2020.3017380.
- [106] S. Milani, E. Polo and S. Limuti, "A Transform Coding Strategy for Dynamic Point Clouds," in IEEE Transactions on Image Processing, vol. 29, pp. 8213-8225, 2020, doi: 10.1109/TIP.2020.3011811.
- [105] Verde, S.; Marcon, M.; Milani, S.; Tubaro, S. Advanced Assistive Maintenance Based on Augmented Reality and 5G Networking. Sensors 2020, 20, 7157. <https://doi.org/10.3390/s20247157>

Conferences

- [104] N. Bonettini, P. Bestagini, S. Milani and S. Tubaro, "On the use of Benford's law to detect GAN-generated images," 2020 25th International Conference on Pattern Recognition (ICPR), 2021, pp. 5495-5502, doi: 10.1109/ICPR48806.2021.9412944.
- [103] Gianmaria Rossi, Marco Fontani, and Simone Milani. 2021. Neural Network for Denoising and Reading Degraded License Plates. In Pattern Recognition. ICPR International Workshops and Challenges: Virtual Event, January 10–15, 2021, Proceedings, Part VI. Springer-Verlag, Berlin, Heidelberg, 484–499. https://doi.org/10.1007/978-3-030-68780-9_39
- [102] S. Milani, "A Syndrome-Based Autoencoder For Point Cloud Geometry Compression," 2020 IEEE International Conference on Image Processing (ICIP), 2020, pp. 2686-2690, doi: 10.1109/ICIP40778.2020.9190647.
- [101] R. Castelletto, S. Milani and P. Bestagini, "Phylogenetic Minimum Spanning Tree Reconstruction Using Autoencoders," ICASSP 2020 - 2020 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2020, pp. 2817-2821, doi: 10.1109/ICASSP40776.2020.9054389.

Published works (year 2019)

Conferences

- [100] F. Capraro, S. Milani "Rendering-aware point cloud coding for mixed reality devices" , 2019 IEEE International Conference on Image Processing (ICIP), 2019, pp. 3706-3710, doi: 10.1109/ICIP.2019.8803432.
- [99] S. Verde, S. Milani and G. Calvagno, "Phylogenetic Analysis of Software Using Cache Miss Statistics," ICASSP 2019 - 2019 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2019, pp. 2552-2556, doi: 10.1109/ICASSP.2019.8683834.

[98] G. Agresti and S. Milani, "Material Identification Using RF Sensors and Convolutional Neural Networks," ICASSP 2019 - 2019 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2019, pp. 3662-3666, doi: 10.1109/ICASSP.2019.8682296.

Published works (year 2018)

Journals

[97] Verde, S.; Pretto, N.; Milani, S.; Canazza, S. Stay True to the Sound of History: Philology, Phylogenetics and Information Engineering in Musicology. *Appl. Sci.* 2018, 8, 226.

Conferences

[96] S. Limuti, E. Polo and S. Milani, "A Transform Coding Strategy for Voxelized Dynamic Point Clouds," 2018 25th IEEE International Conference on Image Processing (ICIP), Athens, 2018, pp. 2954-2958.

[95] S. Verde, L. Bondi, P. Bestagini, S. Milani, G. Calvagno, S. Tubaro, "Video Codec Forensics Based on Convolutional Neural Networks", IEEE International Conference on Image Processing (ICIP), Athens, Greece, 2018.

[94] Verde S., Milani S., Calvagno G., Phylogenetic analysis of multimedia codec software, 26th European Signal Processing Conference (EUSIPCO), Rome, Italy, 2018.

[93] G. Michieletto, S. Milani, A. Cenedese, G. Baggio, "Improving Consensus-based Distributed Camera Calibration via Edge Pruning and Graph Traversal Initialization", 2018 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), Calgary, Canada, 2018.

Published works (year 2017)

Journals

[92] Simone Milani, Enrico Tronca, "Improving three-dimensional reconstruction of buildings from web-harvested images using forensic clues," *Journal of Electronic Imaging* 26(1), 011009 (10 November 2016).

Conferences

[91] M. Lecci and S. Milani, "3D reconstruction from web harvested images using a forensic quality metric," 2017 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), New Orleans, LA, 2017, pp. 1997-2001.

[90] S. Milani, "Improving 3D reconstruction tracks using denoised euclidean distance matrices," *2017 IEEE International Conference on Image Processing (ICIP)*, Beijing, 2017, pp. 740-744. Candidate for the Best Paper Award

[89] S. Milani, "Fast point cloud compression via reversible cellular automata block transform," *2017 IEEE International Conference on Image Processing (ICIP)*, Beijing, 2017, pp. 4013-4017.

[88] S. Verde, S. Milani, P. Bestagini and S. Tubaro, "Audio phylogenetic analysis using geometric transforms," 2017 IEEE Workshop on Information Forensics and Security (WIFS), Rennes, 2017, pp. 1-6.

Published works (year 2016)

Journals

[87] P. Bestagini, S. Milani, M. Tagliasacchi and S. Tubaro, "Codec and GOP Identification in Double Compressed Videos," in *IEEE Transactions on Image Processing*, vol. 25, no. 5, pp. 2298-2310, May 2016.

[86] S. Milani, Compression of multiple user photo galleries, *Image and Vision Computing*, Available online 4 January 2016, ISSN 0262-8856, <http://dx.doi.org/10.1016/j.imavis.2015.12.002>.

Conferences

[85] S. Milani, G. Agresti and G. Calvagno, "A rate control algorithm for video coding in augmented reality applications," *2016 Picture Coding Symposium (PCS)*, Nuremberg, 2016, pp. 1-5. doi: 10.1109/PCS.2016.7906323

[84] S. Milani, M. Fontana, P. Bestagini and S. Tubaro, "Phylogenetic analysis of near-duplicate images using processing age metrics," *2016 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Shanghai, 2016, pp. 2054-2058

[83] S. Milani and A. Memo, "Impact of drone swarm formations in 3D scene reconstruction," *2016 IEEE International Conference on Image Processing (ICIP)*, Phoenix, AZ, 2016, pp. 2598-2602.

[82] M. Calemme, P. Zanuttigh, S. Milani, M. Cagnazzo and B. Pesquet-Popescu, "Depth map coding with elastic contours and 3D surface prediction," *2016 IEEE International Conference on Image Processing (ICIP)*, Phoenix, AZ, 2016, pp. 1106-1110.

[81] S. Milani, P. Bestagini and S. Tubaro, "Phylogenetic analysis of near-duplicate and semantically-similar images using viewpoint localization," *2016 IEEE International Workshop on Information Forensics and Security (WIFS)*, Abu Dhabi, 2016, pp. 1-6.

Published works (year 2015)

Journals

[80] Milani, G. Calvagno, "Correction and interpolation of depth maps from structured light infrared sensors", *Signal Processing: Image Communication*, Volume 41, February 2016, Pages 28-39, ISSN 0923-5965, <http://dx.doi.org/10.1016/j.image.2015.11.008>.

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