

## COMPLETE LIST OF PUBLICATIONS

### INTERNATIONAL JOURNALS

#### 2000-

- [A1] V.Murino, C.S.Regazzoni, G.Vernazza, "Distributed propagation of a-priori constraints in a Bayesian network of Markov Random Fields", *IEE Proceedings, Part I, Communications, Speech, and Vision*, Vol. 140, N. 1, Feb. 1993, pp. 46-55.
- [A2] V.Murino, G.L.Foresti, C.S.Regazzoni, G.Vernazza, "Distributed Spatial Reasoning for Multisensory Image Interpretation", *Signal Processing*, Special Issue on Intelligent Systems for Signal and Image Understanding, Vol.32, N.1-2, May 1993, pp. 217-255.
- [A3] V.Murino, C.S.Regazzoni, G.L.Foresti, "Distributed Hierarchical Regularization System for Recognition of Planar Surfaces", *Optical Engineering*, Vol. 32, N. 6, June 1993, pp. 1167-1192.
- [A4] V.Murino, G.L.Foresti, C.S.Regazzoni, G.Vernazza, "Grouping of Rectilinear Segments by the Labeled Hough Transform", *Computer Vision, Graphics, and Image Processing: Image Understanding*, Vol.59, N.1, Jan. 1994, pp. 22-42.
- [A5] V.Murino, G.L.Foresti, C.S.Regazzoni, G.Vernazza, "A Distributed Approach to 3D Road Scene Recognition", *IEEE Transactions on Vehicular Technology*, Vol. 43, N. 2, May 1994, pp. 389-406.
- [A6] V.Murino, G.L.Foresti, C.S.Regazzoni, G.Vernazza, "A Multilevel Fusion Approach to Object Identification in Outdoor Road Scenes", *International Journal on Pattern Recognition and Artificial Intelligence*, Vol. 9, N. 1, Feb. 1995, pp. 23-65.
- [A7] V.Murino, C.S. Regazzoni, A. Trucco, G. Vernazza, "A Non-Coherent Correlation Technique and Focused Beamforming for Ultrasonic Underwater Imaging: a Comparative Analysis", *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, vol. 41, No. 5, September 1994, pp. 621-630.
- [A8] V. Murino, A. Trucco, "Dynamic Focusing by FFT Beamforming for Underwater 3D Imaging", *Acoustics Letters*, Vol. 17, N. 9, March 1994, pp. 169-172.
- [A9] V.Murino, G.L.Foresti, "A Real-Time Image-Processing System for Visual Inspection of Real Environments", *Journal on Communications*, Vol. XLV, May-June 1994, pp. 61-64.
- [A10] V.Murino, C.S.Regazzoni, G.L. Foresti, "A Distributed Probabilistic System for Adaptive Regulation of Image Processing Parameters", *IEEE Transactions on Systems, Man, and Cybernetics*, Vol. 26, No. 2, February 1996, pp. 1-20.
- [A11] V.Murino, A. Trucco, C.S.Regazzoni, "Synthesis of Unequally Spaced Arrays by Simulated Annealing", *IEEE Transactions on Signal Processing*, Vol. 44, N. 1, Jan. 1996, pp. 119-123.
- [A12] V.Murino, "Acoustic Image Reconstruction by Markov Random Fields", *Electronics Letters*, Vol. 32, N. 7, March 1996, pp. 697-698.
- [A13] V.Murino, G.L.Foresti, C.S.Regazzoni, "Grouping as a Searching Process for Minimum-Energy Configurations of Labelled Random Fields", *Computer Vision and Image Understanding*, Vol. 64, No. 1, July 1996, pp. 157-174.
- [A14] V.Murino, G.L.Foresti, C.S.Regazzoni, "Adaptive camera regulation for investigation of real scenes", *IEEE Transactions on Industrial Electronics*, Vol. 43, N. 5, Oct. 1996, pp. 588-600.
- [A15] V.Murino, B.Bianco, A.Oneto, T.Tommasi, A.Diaspro, "A frequency-domain analysis of 3D reconstruction techniques based on defocusing", *International Journal of Modelling*

*and Simulation* 16 (2), pp. 92-94, 1996.

- [A16] V.Murino, A.Tesei, A.Trucco, "Beam Pattern Formulation and Analysis for Wide-Band Beamforming Systems using Sparse Arrays", *Signal Processing*, Vol. 56, No. 2, pp. 177-183, 1997.
- [A17] V.Murino, G.L.Foresti, C.S.Regazzoni, A.Trucco, "A voting-based approach for fast object recognition in underwater acoustic imaging", *IEEE Journal on Oceanic Engineering*, Vol. 22, No. 1, January 1997, pp. 57-65.
- [A18] V.Murino, G.L.Foresti, "2D into 3D Hough-Space Mapping for Planar Object Pose Estimation", *Image and Vision Computing*, no. 15, pp. 435-444, 1997.
- [A19] V.Murino, A.Trucco, "Markov-based Methodology for the Restoration of Underwater Acoustic Images", *International Journal of Imaging Systems and Technology*, Special Issue on Advanced Microwave and Acoustical Imaging and Applications, Vol. 8, No. 4, pp. 386-395, 1997.
- [A20] V.Murino, G.L.Foresti, C.S.Regazzoni, "A Belief-based Approach for Adaptive Image Processing", *International Journal on Pattern Recognition and Artificial Intelligence*, Vol. 11, No. 3, pp. 359-392, 1997.
- [A21] V.Murino, A.Trucco, "On Nonlinear Effects of Envelope Detection in Beamforming Systems", *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, Vol. 44, No. 4, pp. 948-952, July 1997.
- [A22] V.Murino, A.Trucco, "A Co-operative Approach to Feature Extraction from Acoustic Images", *Applied Signal Processing*, no. 3, pp. 128-135, 1996.
- [A23] V.Murino, G.L.Foresti, C.S.Regazzoni, "Vehicle recognition and tracking from road image sequences", *IEEE Transactions on Vehicular Technology*, Vol. 48, No. 1, pp. 301-318, January 1999.
- [A24] V.Murino, C.Ottonello, S.Pagnan, "Noisy Texture Classification: A Higher Order Statistics Approach", *Pattern Recognition*, Vol. 31, No. 4, pp. 383-393, 1998.
- [A25] V. Murino, A. Trucco, C.S. Regazzoni, "A Probabilistic Approach to the Coupled Reconstruction and Restoration of Underwater Acoustic Images", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 20, No. 1, pp. 9-22, January 1998.
- [A26] V. Murino, "Structured Neural Networks for Pattern Recognition", *IEEE Transactions on Systems, Man, and Cybernetics*, Part B: Cybernetics, Vol. 28, N. 4, pp. 553-561, August 1998.
- [A27] V.Murino, A.Trucco, "Confidence-based Approach to Enhancing Underwater Acoustic Image Formation ", *IEEE Transactions on Image Processing*, Vol. 8, No. 2, February 1999 pp. 270-285.
- [A28] A.Trucco, V.Murino, "Stochastic Optimization of Linear Sparse Arrays", *IEEE Journal on Oceanic Engineering*, Vol. 24, No. 3, pp. 291-299, July 1999.
- [A29] V. Murino, A. Trucco, "A Geometric Approach to the Surface Fitting Problem in Underwater 3-D Acoustic Images", *Measurement Science and Technology*, Vol. 10, No. 12, pp. 1135-1141, December 1999.
- [A30] V. Murino, A. Fusillo, "Calibration of an optical-acoustic sensor", *Machine Graphics & Vision*, Vol. 9, No. 1/2, May 2000, pp. 207-214.
- [A31] V. Murino, A. Trucco, "Guest Editors' Introduction - Underwater Computer Vision and Pattern Recognition", *Computer Vision and Image Understanding*, Vol. 79, No. 1, July 2000, pp. 1-3.
- [A32] V. Murino, A. Trucco, "Three-Dimensional Image Generation and Processing in Underwater Acoustic Vision", *Proceedings of the IEEE*, Vol. 88, No. 12, Dec. 2000, pp. 1903-1946.

---

**2001**

---

- [A33] V.Murino, "Reconstruction and Segmentation of Underwater Acoustic Images combining Confidence Information in MRF Models", *Pattern Recognition*, Vol. 34, No. 5, May 2001, pp. 981-997.
- [A34] V. Murino, G. Vernazza, "Guest Editorial - Artificial Neural Networks for Image Analysis and Computer Vision", *Image and Vision Computing*, Vol. 19, No. 9-10, August 2001, pp. 583-584.
- [A35] A. Trucco, V. Murino, "Synthesis of Unequally Spaced Arrays with Asymmetric Beam Patterns," *Journal of Computational Acoustics*, vol. 9, no. 3, pp. 789-803, September 2001.

**2002**

---

- [A36] U. Castellani, A. Fusiello, V. Murino, "Registration of multiple acoustic range views for underwater scene reconstruction", *Computer Vision and Image Understanding*, Vol. 87, no. 3, 2002, pp. 78-89.

**2003**

---

- [A37] M. Bicego, V. Murino, M.A.T. Figueiredo, "A sequential pruning strategy for the selection of the number of states in hidden Markov models", *Pattern Recognition Letters*, Vol. 24, No. 9-10, Feb. 2003, pp. 1395-1407.
- [A38] H. Zha, H. Saito, A. Fusiello, and V. Murino, "3-D Image Analysis and Modeling - Editorial Message", *IEEE Transactions on Systems, Man, and Cybernetics - Part B: Cybernetics, Special Issue on 3-D Image Analysis and Modeling*, Vol. 33, No. 4, August 2003, pp. 550-553.

**2004**

---

- [A39] A. Fusiello, V. Murino, "Augmented Scene Modeling and Visualization by Optical and Acoustic Sensor Integration", *IEEE Transactions on Visualization and Computer Graphics*, Vol. 10, No. 6, 2004, pp. 625-636.
- [A40] M. Bicego and V. Murino, "Investigating Hidden Markov Models' Capabilities in 2D Shape Classification", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 26, No. 3, Feb. 2004, pp. 281-286.
- [A41] M. Bicego, V. Murino, M.A.T. Figueiredo, "Similarity-based classification of sequences using Hidden Markov Models", *Pattern Recognition*, Vol. 37, No. 12, Dec. 2004, pp 2281-2291.
- [A42] U. Castellani, V. Murino, L. Tao, "Efficient Scene Modeling for Underwater ROV Driving", *Sea Technology*, Vol. 45, No. 12, December 2004, pp. 47-52.

**2005**

---

- [A43] M. Bicego, M. Del Rosario Martinez, V. Murino, "A supervised data-driven approach for microarray spot quality classification", *Pattern Analysis & Applications*, Vol. 8, No. 1-2, September 2005, pp. 181-187.
- [A44] U. Castellani, A. Fusiello, V. Murino, L. Papaleo, E. Puppo, M. Pittore, "A complete system for on-line modelling of acoustic images", *Signal Processing: Image Communication*, Special Issue on European Projects on Visual Representation Systems and Services, Vol. 20, No. 9-10, October-November 2005, pp. 832-852.

- [A45] M. Bicego, U. Castellani, V. Murino, "A Hidden Markov Model approach for appearance-based 3D object recognition", *Pattern Recognition Letters*, Vol. 26, No. 16, pp. 2588-2599, December 2005.

## 2006

---

- [A46] M. Bicego, M. Cristani, V. Murino, "Unsupervised Scene Analysis: A Hidden Markov Model Approach", *Computer Vision and Image Understanding*, Vol. 102/1, pp. 22-41, April 2006.
- [A47] M. Bicego, V. Murino, M. Pelillo, A. Torsello, "Guest Editors' Introduction - Similarity-based Pattern Recognition", *Pattern Recognition*, Vol. 39, No. 10, October 2006.

## 2007

---

- [A48] A. Colombari, A. Fusiello, V. Murino, "Segmentation and Tracking of Multiple Video Objects", *Pattern Recognition*, Vol. 40, No. 4, April 2007, pp. 1307-1317.
- [A49] M. Cristani, M. Bicego, V. Murino, "Audio-Visual Event Recognition in Surveillance Video Sequences", *IEEE Transactions on Multimedia*, Vol. 9, No. 2, Feb. 2007, pp. 257-267.
- [A49] U. Castellani, A. Fusiello, R. Gherardi, V. Murino, "Automatic selection of MRF control parameters by Reactive Tabu Search", *Image and Vision Computing*, Vol. 25, No. 11, November 2007, pp. 1824-1832.

## 2008

---

- [A50] U. Castellani, M. Cristani, S. Fantoni, V. Murino, "Sparse points matching by combining 3D mesh saliency with statistical descriptors", *Computer Graphics Forum*, Vol. 27, No. 2, pp. 643-652, April 2008 (also published in the *Proceedings of Eurographics 2008*, Crete, Greece).
- [A51] U. Castellani, M. Cristani, C. Combi, V. Murino, A. Sbarbati, P. Marzola, "Visual MRI: Merging Information Visualization and non-parametric clustering techniques for MRI data set analysis", *Artificial Intelligence in Medicine*, Vol. 44, No. 3, November 2008, pp. 171-282.

## 2009

---

- [A52] A. Perina, M. Cristani, L. Xumerle, V. Murino, P.F. Pignatti, G. Malerba, "Fully non-homogenous hidden Markov model double net: a generative model for haplotype reconstruction and block discovery", *Artificial Intelligence in Medicine*, Vol. 45, No. 2-3, Feb.-March 2009, pp. 135-150.
- [A53] U. Castellani, M. Cristani, A. Daducci, P. Farace, P. Marzola, V. Murino, A. Sbarbati, "DCE-MRI Data Analysis for Cancer Area Classification", *Methods of information in medicine*, Vol. 48, No. 3, June 2009, pp. 248-253.
- [A54] M. Cristani, A. Perina, U. Castellani, V. Murino, "Geo-located image categorization and location recognition", *Pattern Recognition and Image Analysis*, Vol. 19, No. 2, June 2009, pp. 245-252.

## 2010

---

- [A55] A. Perina, M. Cristani, V. Murino, "Learning natural scene categories by selective multi-level feature extraction", *Image and Vision Computing*, Vol. 28, Issue 6, June 2010, pp. 927-939.
- [A56] B. Torre, M. Bicego, M. Cristani, V. Murino, A. Diaspro, R. Cingolani, "Combination of Atomic

Force Microscopy and Principal Component Analysis as a general method for direct recognition of functional and structural domains in nanocomposite materials”, *Microscopy Research and Technique*, Vol. 73, Issue 10, Oct. 2010, pp. 973-981.

- [A57] R.Marzotto, P.Zoratti, D.Bagni, A.Colombari, V.Murino, “A real-time versatile roadway path extraction and tracking on an FPGA platform”, *Computer Vision and Image Understanding*, Vol. 114, Issue 11, Nov. 2010, pp. 1164-1179.
- [A58] M. Cristani, M. Farenzena, D. Bloisi, V. Murino, “Background Subtraction for Automated Multisensor Surveillance: a Comprehensive Review”, *EURASIP Journal on Advances in Signal Processing*, Hindawi Publishing Corporation, 2010:343057, 24 pages (online). <https://doi.org/10.1155/2010/343057>

## 2011

---

- [A59] M.Cristani, A.Pesarin, C.Drioli, A.Perina, A.Tavano, V.Murino, “Generative Modeling and Classification of Dialogs by a Low-level Turn-taking Feature”, *Pattern Recognition*, Volume 44, Issue 8, August 2011, pp. 1785-1800.
- [A60] A.Ulas, R.P.W.Duin, U.Castellani, M.Loog, P.Mirtuono, M.Bicego, V.Murino, M.Bellani, S.Cerruti, M.Tansella, P.Brambilla, “Dissimilarity-Based Detection of Schizophrenia”, *International Journal of Imaging Systems & Technology*, Volume 21, Issue 2, June 2011, pp. 179–192.
- [A61] U. Castellani, M.Cristani, V.Murino, “Statistical 3D shape analysis by local generative descriptors”, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 33 no. 12, Dec. 2011, pp. 2555-2560.
- [A62] Torre B., Lorenzoni M., Bicego M., Cristani M., Murino V. and Diaspro A., “PCA In Dynamic Force Spectroscopy”, *Imaging & Microscopy*, 13(4), pp. 26-28, Nov. 2011.

## 2012

---

- [A63] Crocco M., Del Bue A. and Murino V., “A Bilinear Approach to the Position Self-Calibration of Multiple Sensors”, *IEEE Transactions on Signal Processing*, Vol. 60, No. 2, pp. 660-673, Feb. 2012.
- [A64] A.Sedda, V.Manfredi, G.Bottini, M.Cristani, V.Murino. Automatic human interaction understanding: lessons from a multidisciplinary approach. *Frontiers in Human Neuroscience*, Volume 6, Article 57 (online), March 2012.
- [A65] A. Perina, M. Cristani, U. Castellani, V. Murino, N. Jovic, “Free energy score spaces: using generative information in discriminative classifiers”, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 34, No. 7, pp. 1249-1262, July 2012.
- [A66] L. Bazzani, M. Cristani, A. Perina, V. Murino, “Multiple-shot Person Re-identification by Chromatic and Epitomic Analyses”, *Pattern Recognition Letters*, No. 33, pp. 898–903, 2012.
- [A67] A. Pesarin, M. Cristani, V. Murino, A. Vinciarelli, “Conversation Analysis at Work: Detection of Conflict in Competitive Discussions through Semi-Automatic Turn-Organization Analysis”, *Cognitive Processing*, Volume 13, Issue 2 Supplement, pp 533-540, October 2012.
- [A68] U. Castellani, E. Rossato, V. Murino, M. Bellani, G. Rambaldelli, C. Perlini, L. Tomelleri, M. Tansella, and P. Brambilla. Classification of schizophrenia using feature-based morphometry. *Journal of Neural Transmission*, Vol. 119 No. 3, pp. 395-404, 2012.
- [A69] A.Perina, N.Jovic, M.Cristani, V.Murino, “Stel Component Analysis: Joint Segmentation, Modeling and Recognition of Objects Classes”, *International Journal of Computer Vision*, Vol. 100, No. 3, pp. 241-260, 2012.

- [A70] M. Fasoli, S. Dal Santo, S. Zenoni, G.B. Tornielli, L. Farina, A. Zamboni, A. Porceddu, L. Venturini, M. Bicego, V. Murino, A. Ferrarini, M. Delledonne, M. Pezzotti, "The Grapevine Expression Atlas Reveals a Deep Transcriptome Shift Driving the Entire Plant into a Maturation Program," *The Plant Cell*, Vol. 24(9), Sept. 2012.
- [A71] M. Bicego, P. Lovato, A. Perina, M. Fasoli, M. Delledonne, M. Pezzotti, A. Polverari, V. Murino, "Investigating topic models' capabilities in expression microarray data classification", *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, vol. 9, no. 6, pp. 1831-1836, 2012.
- [A72] P. Bisignano, C. Lambruschini, M. Bicego, V. Murino, A.D. Favia, A. Cavalli, "In Silico Deconstruction of ATP-Competitive Inhibitors of Glycogen Synthase Kinase-3 $\beta$ ", *Journal of Chemical Information and Modeling*, 52(12), pg. 3233-3244, December 2012.

## 2013

---

- [A73] L. Bazzani, D. Tosato, M. Cristani, M. Farenzena, G. Paggetti, G. Menegaz, and V. Murino. Social interactions by visual focus of attention in a three-dimensional environment. *Expert Systems*, Vol. 30(2), pp. 115-127, 2013 (online July 2012).
- [A74] Cristani M., Raghavendra R., Del Bue A., Murino V., "Human Behavior Analysis in Video Surveillance: a Social Signal Processing Perspective", *Neurocomputing*, Vol. 100, pp. 86-97, Jan. 2013.
- [A75] M. Bicego, A. Ulus, U. Castellani, A. Perina, V. Murino, A.F.T. Martins, P.M.Q. Aguiar, M.A.T. Figueiredo, "Combining Information Theoretic Kernels with Generative Embeddings for Classification", *Neurocomputing*, Vol. 101, pp. 161-169, Feb. 2013.
- [A76] L. Bazzani, M. Cristani, V. Murino. "Symmetry-driven accumulation of local features for human characterization and re-identification". *Computer Vision and Image Understanding*, Vol. 117(2), pp. 130-144, February 2013.
- [A77] D. Tosato, M. Spera, M. Cristani, V. Murino, "Characterizing humans on Riemannian manifolds", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 35(8), pp. 1972-1984, August 2013.
- [A78] L. Giancardo, D. Sona, H. Huang, S. Sannino, F. Managò, D. Scheggia, F. Papaleo, V. Murino, "Automatic Visual Tracking and Social Behaviour Analysis with Multiple Mice", *PLoS ONE* 8(9): e74557, Sept. 2013. DOI:10.1371/journal.pone.0074557.

## 2014

---

- [A79] A.C. Carli, M.A.T. Figueiredo, M. Bicego, V. Murino, "Generative embeddings based on Rician mixtures for kernel-based classification of magnetic resonance images", *Neurocomputing*, Vol. 123, pp. 49-59, 2014.
- [A80] F. Papaleo, M.L. Scattoni, L. Giancardo, D. Sona, H. Huang, S. Sannino, F. Managò, D. Scheggia, V. Murino, "Chronic and Acute Intranasal Oxytocin Produce Divergent Social Effects in Mice", *Neuropsychopharmacology*, 39(5), pp. 1102-14, April 2014.
- [A81] D.S. Cheng, H. Salamin, P. Salvagnini, M. Cristani, A. Vinciarelli, V. Murino. "Predicting Online Lecture Ratings Based on Gesturing and Vocal Behavior", *Journal on Multimodal User Interfaces*, Vol. 8, Issue 2, pp. 151-160, June 2014.
- [A82] A. Tavano, A. Pesarin, V. Murino, M. Cristani. "Automatic conversational scene analysis in children with Asperger syndrome/High Functioning Autism and typically developing peers", *PLoS ONE*, 2014. DOI: 10.1371/journal.pone.0085819.
- [A83] Pisani P., Piro P., Decherchi S., Bottegoni G., Sona D., Murino V., Rocchia W., Cavalli A., "Describing the Conformational Landscape of Small Organic Molecules through Gaussian Mixtures in Dihedral Space", *Journal of Chemical Theory and Computation*, 10(6), pp. 2557-2568, 2014.

- [A84] M. San Biagio, S. Martelli, M. Crocco, M. Cristani, V. Murino "Encoding Structural Similarity By Cross-covariance Tensors For Image Classification", *International Journal of Pattern Recognition and Artificial Intelligence*, Vol. 28, Issue 7, November 2014.
- [A85] S. Ullo, T.R. Nieus, D. Sona, A. Maccione, L. Berdondini, V. Murino, "Functional Connectivity Estimation over Large Networks at Cellular Resolution based on Electrophysiological Recordings and Structural Prior", *Frontiers in Neuroanatomy* 8:137, Nov. 2014. DOI: 10.3389/fnana.2014.00137. *Online*

## 2015

---

- [A86] L. Dodero, S. Vascon, V. Murino, A. Bifone, A. Gozzi, D. Sona, "Automated Multi-Subject Fiber Clustering of Mouse Brain using Dominant Sets", *Frontiers in Neuroinformatics* 8:87, Jan. 2015. DOI: 10.3389/fninf.2014.00087. *Online*
- [A87] L. Bazzani, M. Zanotto, M. Cristani, V. Murino, "Joint Individual-Group Modeling for Tracking", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol 37(4), pp. 746-759, April 2015.
- [A88] S. Ullo, V. Murino, A. Maccione, L. Berdondini, D. Sona, "Bridging the Gap in Connectomic Studies: A Particle Filtering Framework for Estimating Structural Connectivity at Network Scale Medical Image Analysis", *Medical Image Analysis*, Vol. 21, No. 1, pp. 1-14, April 2015.
- [A89] P. Salvagnini, F. Pernici, M. Cristani, G. Lisanti, A. Del Bimbo, V. Murino, "Non-Myopic Information Theoretic Sensor Management of a Single Pan-Tilt-Zoom Camera for Multiple Object Detection and Tracking", *Computer Vision and Image Understanding*, Vol. 134, pp. 74–88, May 2015.
- [A90] D. Peruzzo, U. Castellani, C. Perlini, M. Bellani, V. Marinelli, G. Rambaldelli, A. Lasalvia, S. Tosato, K. De Santi, V. Murino, M. Ruggeri, P. Brambilla, "Classification of first-episode psychosis: a multi-modal multi-feature approach integrating structural and diffusion imaging", *Journal of Neural Transmission*, Vol. 122, No. 6, pp. 897-905, 2015.

## 2016

---

- [A91] M. Tamassia, A. Farinelli, V. Murino, A. Del Bue, "Directional Visual Descriptors and Multirobot Strategies for Large-Scale Coverage Problems", *Journal of Field Robotics*, Vol. 33, Issue 4, 2016. <https://doi.org/10.1002/rob.21612>
- [A92] S. Vascon, E.Z. Mequanint, M. Cristani, H. Hung, M. Pelillo, V. Murino, "Detecting conversational groups in images and sequences: a robust game-theoretic approach", *Computer Vision and Image Understanding*, Vol. 143, pp. 11-24, Feb. 2016.
- [A93] Minh Hà Quang, L. Bazzani, V. Murino, "A Unifying Framework in Vector-Valued Reproducing Kernel Hilbert Spaces for Manifold Regularization and Co-Regularized Multi-View Learning", *Journal of Machine Learning Research*, 17(25):1–72, 2016.
- [A94] M. Crocco, M. Cristani, A. Trucco, V. Murino, "Audio Surveillance: A Systematic Review", *ACM Computing Survey*, Vol. 48, Issue 4, March 2016.
- [A95] B. Zhang, A. Perina, Z. Li, V. Murino, J. Liu, R. Ji, "Bounding Multiple Gaussians Uncertainty with Application to Object Tracking", *International Journal on Computer Vision*, Vol. 118, No. 3, pp. 364-379, July 2016. DOI: 10.1007/s11263-016-0880-y.
- [A96] I.L. Liakos, P. Salvagnini, A. Scarpellini, R. Carzino, C. Beltran, E. Mele, V. Murino, A. Athanassiou, "Bio-mimetic locomotion on water of a porous natural polymeric composite", *Advanced Materials Interfaces*, Vol. 3, Issue 11, June 2016.
- [A97] M. Pelillo, E.R. Hancock, X. Li, V. Murino, "Guest Editorial – Learning in Non-(geo)metric Spaces (Special Section)", *IEEE Trans. on Neural Networks and Learning Systems*, Vol. 27, Issue 6, June 2016, pp. 1290-1293.

- 
- [A98] P. Lovato, M. Bicego, M. Kesa, N. Jojic, V. Murino, A. Perina, "Traveling on discrete embeddings of gene expression", *Artificial Intelligence in Medicine*, Vol. 70, June 2016, pp. 1-11.

## 2017

---

- [A99] G. Hilgen, M. Sorbaro, S. Pirmoradian, J-O. Muthmann, I.E. Kepiro, S. Ullo, C.J. Ramirez, A. Puente Encinas, A. Maccione, L. Berdondini, V. Murino, D. Sona, F. Cella Zanacchi, E. Sernagor, M.H. Hennig, "Unsupervised spike sorting for large scale, high-density multielectrode arrays", *Cell Reports*, Vol. 18, Issue 10, March 2017, pp. 2521-2532.
- [A100] V. Murino, S. Gong, C.C. Loy, L. Bazzani, "Editorial – Image and Video Understanding in Big Data", *Computer Vision and Image Understanding* 156, Special Issues on Image and Video Understanding in Big Data, Vol. 156, March 2017, pp. 1-3.
- [A101] B. Zhang, Z. Li, A. Perina, A. Del Bue, V. Murino, J. Liu, "Adaptive Local Movement Modeling for Robust Object Tracking", *IEEE Trans. on Circuits and Systems for Video Technology*, Vol. 27(7), pp. 1515-1526, July 2017.
- [A102] M. San Biagio, C. Beltran-Gonzalez, S. Giunta, A. Del Bue, V. Murino, "Automatic Inspection of Aeronautics Components", *Machine Vision and Applications*, Vol. 28, No. 5-6, DOI 10.1007/s00138-017-0839-1, August 2017, pp. 591-605.
- [A103] S. Bak, M. San Biagio, R. Kumar, V. Murino, F. Brémond, "Exploiting Feature Correlations by Brownian Statistics for People Detection and Recognition", *IEEE Transactions on Systems, Man and Cybernetics: Systems*, Vol. 47, Issue 9, Sept. 2017.

## 2018

---

- [A104] C. Beyan, F. Capozzi, C. Becchio, V. Murino, "Prediction of the Leadership Style of an Emergent Leader Using Audio and Visual Nonverbal Features", *IEEE Trans. on Multimedia*, Vol. 20 No. 2, pp. 441-456, 2018.
- [A105] B. Mirmahboub, M.L. Mekhalfi, V. Murino, "Person Re-identification by Order-Induced Metric Fusion", *Neurocomputing*, No. 275, pp. 667-676, 2018.
- [A106] M. Crocco, S. Martelli, A. Trucco, A. Zunino, V. Murino, "Audio Tracking in Noisy Environments by Acoustic Map and Spectral Signature", *IEEE Trans. on Cybernetics*, Vol. 48, Issue 5, pp. 1619-1632, May 2018. [Online since June 2017](#)
- [A107] B. Zhang, A. Perina, Ce Li, Qixiang Le, V. Murino, A. Del Bue, "Manifold constraint transfer for visual structure-driven optimization", *Pattern Recognition*, Vol. 77, pp. 87-98, May 2018.
- [A107] A. Bhuiyan, V. Murino, A. Perina, "Exploiting Multiple Detections for Person Re-identification", *Journal of Imaging* 2018, 4, 28. <https://doi.org/10.3390/jimaging4020028>
- [A109] S.Martelli, L. Mazzei, C. Canali, P. Guardiani, S. Giunta, A. Ghiazza, I. Mondino, F. Cannella, V. Murino, A. Del Bue, "Deep Endoscope: Intelligent Duct Inspection for the Avionic Industry", *IEEE Trans. on Industrial Informatics*, Vol. 14, Issue 4, pp. 1701-1711, April 2018.
- [A110] V-M. Katsageorgiou, D. Sona, M. Zanotto, G. Lassi, C. Garcia-Garcia, V. Tucci, V. Murino, "A Novel Unsupervised Analysis of Electrophysiological Signals Reveals New Sleep Sub-stages in Mice", *PLOS Biology*, 16(5), May 2018. <https://doi.org/10.1371/journal.pbio.2003663>
- [A111] A. Roy, B. Banerjee, V. Murino, "Discriminative Body Part Interaction Mining for Mid-Level Action Representation and Classification", *Journal of Visual Communication and*

---

*Image Representation*, Volume 55, pp. 829-840, August 2018.

## 2019

---

- [A112] A. Crimi, L. Giancardo, F. Sambataro, A. Gozzi, V. Murino, D. Sona, "MultiLink Analysis: Brain Network Comparison via Sparse Connectivity Analysis", *Scientific Reports*, 9:65, 2019. DOI:10.1038/s41598-018-37300-4.
- [A113] C. Beyan, V-M. Katsageorgiou, V. Murino, "A Sequential Data Analysis Approach to Detect Emergent Leaders in Small Groups", *IEEE Trans. on Multimedia*, Vol. 21, Issue 8, Aug. 2019. DOI: 10.1109/TMM.2019.2895505
- [A114] S. Aslani, M. Dayan, L. Storelli, M. Filippi, V. Murino, M.A. Rocca, D. Sona, "Multi-branch Convolutional Neural Network for Multiple Sclerosis Lesion Segmentation", *NeuroImage*, Vol. 196, August 2019, pp. 1-15.
- [A115] J. Cavazza, P. Morerio, V. Murino, "Scalable and Compact 3D Action Recognition with Approximated RBF Kernel Machines", *Pattern Recognition*, Vol. 93, Sept. 2019, pp. 25-35.
- [A116] Capozzi, F., Beyan, C., Pierro, A., Koul, A., Murino, V., Livi, S., Bayliss, A.P., Ristic, J., Becchio, C., "Tracking The Leader: Gaze Behaviour In Group Interactions", *ISCIENCE* (2019), DOI: <https://doi.org/10.1016/j.isci.2019.05.035>.
- [A117] R. Panda, A. Bhuiyan, V. Murino, A.K. Roy-Chowdhury, "Adaptation of Person Re-identification Models for On-boarding New Camera(s)", *Pattern Recognition*, Vol. 96, December 2019.
- [A118] C. Liu, W. Ding, J. Yang, V. Murino, B. Zhang, J. Han, G. Guo, "Aggregation Signature for Small Object Tracking", *IEEE Transactions on Image Processing*, Vol. 29, Sept. 2019, pp. 1738 - 1747. DOI: 10.1109/TIP.2019.2940477
- [A119] C. Beyan, A. Zunino, M. Shahid, V. Murino, "Personality Traits Classification Using Deep Visual Activity-based Nonverbal Features of Key-Dynamic Images", *IEEE Trans. on Affective Computing*, 2019. DOI: 10.1109/TAFFC.2019.2944614

## 2020

---

- [A120] N.C. Garcia, P. Morerio, V. Murino, "Learning with privileged information via adversarial discriminative modality distillation", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 42, Issue 10, 2020.
- [A121] A. Zunino, J. Cavazza, P. Morerio, R. Volpi, A. Cavallo, C. Becchio, V. Murino, "Predicting Intentions from Motion: the Subject-Adversarial Adaptation Approach", *International Journal on Computer Vision*, Vol. 128, Issue 1, 2020, pp. 220-239. DOI: <https://doi.org/10.1007/s11263-019-01234-9>
- [A122] C.Beyan, V.Murino, G. Venture, A. Wykowska, "Guest Editorial – Computational Approaches for Human-Human and Human-Robot Social Interactions", *Frontiers in Robotics and AI*, Lausanne: Frontiers Media SA. Vol. 7, Article 55, April 2020. DOI: 10.3389/978-2-88963-807-9.
- [A123] C.Beyan, M. Shahid, V. Murino, "RealVAD: A Real-world Dataset and A Method for Voice Activity Detection by Body Motion Analysis", *IEEE Trans. on Multimedia*, Vol. 23, July 2020, pp. 2071 - 2085. DOI: 10.1109/TMM.2020.3007350.
- [A124] Bossi F., Willemse C., Cavazza J., Marchesi S., Murino V., Wykowska, A. The human brain reveals resting state activity patterns that are predictive of biases in attitudes towards robots. *Science Robotics*, Vol. 5, Issue 46, 2020.
- [A125] M. Zanotto, R. Volpi, A. Maccione, L. Berdondini, S. Di Marco, D. Sona, V. Murino, "Modeling a Population of Retinal Ganglion Cells with Restricted Boltzmann Machines",

*Scientific Reports*, vol. 10, issue 1, ar.n. 16549, 2020. DOI: 10.1038/s41598-020-73691-z

- [A126] M. Cristani, A. Del Bue, V. Murino, F. Setti, A. Vinciarelli, "The Visual Social Distancing Problem", *IEEE Access*, vol. 8, art. n. 9138385, pp. 126876-126886, 2020. DOI: 10.1109/ACCESS.2020.3008370

## 2021

---

- [A127] A. Zunino, S.A. Bargal, P. Morerio, J. Zhang, S. Sclaroff, V. Murino, "Excitation Dropout: Encouraging Plasticity in Deep Neural Networks", *International Journal on Computer Vision*, Vol. 129, pp. 1139–1152, Jan. 2021.
- [A128] Xiangping Zhu, Xiatian Zhu, Minxian Li, P. Morerio, V. Murino, S. Gong "Intra-Camera Supervised Person Re-Identification", *International Journal on Computer Vision*, Vol. 129, pp. 1580–1595, Feb. 2021.
- [A129] A. Crimi, L. Dodero, F. Sambataro, V. Murino, D. Sona, "Structurally constrained effective brain connectivity", *NeuroImage*, Vol. 239, pp. 1-15, October 2021.
- [A130] S.A. Bargal, A. Zunino, V. Petsiuk, Jianming Zhang, K. Saenko, V. Murino, S. Sclaroff, "Guided Zoom: Zooming into Network Evidence to Refine Fine-Grained Model Decisions", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 43, Issue 11, pp. 4196-4202, November 2021.

---

## CONTRIBUTIONS ON BOOKS

### 2000-

---

- [L1] V.Murino, E.Frumento, F.Gabino, "Restoration of noisy underwater acoustic images using Markov Random Fields", in *Lecture Notes in Computer Science n. 974, Image Analysis & Processing*, Springer Verlag, Berlin, pp. 355-360, 1995.
- [L2] V.Murino, C.Ottonello, S.Pagnan, "Robust features for textures in additive noise", in *Lecture Notes in Computer Science, Image Analysis & Processing n. 974*, Springer Verlag, Berlin, pp. 393-398, 1995.
- [L3] V.Murino, G.L.Foresti, C.Regazzoni, "Depth Estimation for Adaptive Regulation of Camera Parameters", in *Machine Learning and Perception, Series in Machine Perception and Artificial Intelligence*, G. Tascini, F. Esposito, V. Roberto, P. Zingaretti Eds., Vol. 23, World Scientific, Singapore, pp. 83-90, 1996.
- [L4] V.Murino, G.L.Foresti, "Moving object recognition from an image sequence for autonomous vehicle driving", in *Time-Varying Image Processing and Moving Object Recognition 3*, V. Cappellini Eds., Elsevier, Amsterdam, pp. 383-390, 1994.
- [L5] V.Murino, G.L.Foresti, G.Vernazza, "A Hough-based method to extract straight-segments from complex scenes", in *Progress in Image Analysis and Processing*, S. Impedovo Ed., World Scientific, Singapore, pp. 205-208, 1993.
- [L6] V.Murino, G.L.Foresti, C.Regazzoni, "A Markov Random Field approach to grouping of descriptive primitives", in *Image Processing: Theory and Applications*, Elsevier, Amsterdam, pp.167-172, 1993.
- [L7] V.Murino, C.S.Regazzoni, G.L.Foresti, "A Markovian Model for Perceptual Grouping of Different Shape Primitives", in *Lecture Notes in Artificial Intelligence n. 745, Intelligent Perceptual Systems*, Springer Verlag, Berlin, pp. 161-180, 1993.
- [L8] V.Murino, G.L.Foresti, C.S.Regazzoni, G.Vernazza, "Integration of a voting scheme and a stochastic relaxation algorithm for edge-labeling", in *Signal Processing VI, Theories and Applications*, J. Vandewalle, M. Moonen, A. Oosterlinck Eds., Elsevier, Amsterdam, Vol.II, pp. 579-582, 1992.
- [L9] V.Murino, M.F.Peri, C.S.Regazzoni, "Distributed belief revision for adaptive image processing regulation", in *Lecture Notes in Computer Science n. 588, Computer Vision*, Springer Verlag, Berlin, pp. 87-90, 1992.
- [L10] V.Murino, G.L.Foresti, C.Regazzoni, R.Zunino, "3D Object Recognition by Integration of Associative and Symbolic Techniques", in *Visual Form Analysis and Recognition*, C. Arcelli, L.P.Cordella, G. Sanniti di Baja Eds., Plenum Press, New York, pp. 259-266, 1991.
- [L11] V.Murino, C.Regazzoni, G.Vernazza, R.Zunino, "Mellin based classification: a performance analysis", in *Digital Signal Processing - 91*, V.Cappellini, A.G.Costantinides Eds., Elsevier, Amsterdam, pp. 462-467, 1991.
- [L12] V.Murino, R.Feri, G.L.Foresti, C.S.Regazzoni, G.Vernazza, "Spatial reasoning by knowledge-based integration of visual and IR fuzzy cues", in *Signal Processing V Theories and Applications*, L. Torres, E. Masgrau, M.A. Lagunas Eds., Elsevier, Amsterdam, pp. 1719-1722, 1990.

- 
- [L13] V.Murino, A.Trucco, "An analytical formulation for wide-band beam patterns using sparse arrays", in *Acoustical Imaging*, Vol. 22, Tortoli, Masotti Eds., Plenum Press, New York, pp. 69-74, 1996.
- [L14] V.Murino, S.Pagnan, C.Ottonello, A.Trucco, "Texture Analysis: comparison of autocorrelation-based with cumulant-based approaches", in *Signal Processing VIII Theories and Applications*, Vol. III, Ramponi, Sicuranza, Carrato, Marsi Eds., LINT, Trieste, pp. 1503-1505, 1996.
- [L15] V.Murino, "Integration of Confidence Information by Markov Random Fields for Reconstruction of Underwater 3D Acoustic Images", in *Lecture Notes on Computer Science n. 1223*, M.Pelillo, E.Hancock Eds., Springer, pp. 475-490, 1997.
- [L16] V. Murino, A. Trucco, "Coupled Segmentation and Reconstruction of Underwater 3D Acoustic Images using Confidence Information", in *Advances in Visual Form Analisys*, C. Arcelli, L.P. Cordella, G. Sanniti di Baja, Eds., World Scientific, Singapore, pp.415-424, 1997.
- [L17] G.G.Pieroni, G.L.Foresti, V. Murino, "Integration of Optical and Acoustical Imaging Sensors for Underwater Applications", in *Lecture Notes in Computer Science no. 1311, Image Analysis & Processing*, A. Del Bimbo Ed., Springer, Berlin, pp. 749-156, 1997.
- [L18] A. Trucco, V. Murino, "A Weighted Fresnel Approximation for the Delays Used in Focused Beamforming," in *Acoustical Imaging*, Vol. 23, S. Lees, L.A. Ferrari, Eds., Plenum Press, New York, pp. 261-266, 1997.
- [L19] L. De Floriani, V. Murino, G.G. Pieroni, E. Puppo, "Virtual Environment Generation by CAD-Based Methodology for Underwater Vehicle Navigation", in *Signal Processing IX, Theories and Applications (EUSIPCO '98)*, Vol. II, S.Theodoridis, I.Pitas, A.Stouraitis, N.Kalouptsidis Eds., 1998, pp. 1105-1108.
- [L20] A. Trucco, V. Murino, "Synthesis of Unequally Spaced Array with Asymmetric Beam Patterns", *Int. Conf. on Theoretical and Computational Acoustics*, Trieste, Italy, May 1999.
- [L21] V. Murino, A Fusiello, "Augmented Reality by Integrating Multiple Sensory Modalities for Underwater Scene Understanding", in *Confluence of Computer Vision and Computer Graphics, NATO Science Series, 3. High Technology - Vol. 84*, A.Leonardis, F.Solina, R.Bajcsy Eds., Kluwer Academics Publ., 2000, pp. 331-349.

## 2001

---

- [L22] M. Bicego, A. Dovier, V.Murino, "Designing the Minimal Structure of Hidden Markov Models by Bisimulation", in *Lecture Notes on Computer Science n. 2134*, M.Figueiredo, J.Zerubia, A.K.Jain Eds., Springer, pp. 75-90, 2001.
- [L23] A. Fusiello, U. Castellani, V. Murino, "Relaxing Symmetric Multiple Windows Stereo using Markov Random Fields", in *Lecture Notes on Computer Science n. 2134*, M.Figueiredo, J.Zerubia, A.K.Jain Eds., Springer, pp. 91-104, 2001.

## 2002

---

- [L24] A. Trucco, M. Palmese, A. Fusiello, and V. Murino, "Three-dimensional underwater acoustical imaging and processing," in *Underwater Acoustic Digital Signal Processing and Communication Systems*, R.S.H. Istepanian and M. Stojanovic, Eds. Boston: Kluwer Academic Publishers, pp. 247-274, 2002.

- 
- [L25] A. Fusiello, U. Castellani, L. Ronchetti, V. Murino, "Model acquisition by registration of multiple acoustic range views", in *Computer Vision - ECCV 2002, Lecture Notes in Computer Science* 2351, A. Heyden, G. Sparr, M. Nielsen, and P. Johansen Eds., pp. 805-819. Springer, 2002 (Proceedings of the 7th European Conference on Computer Vision).
  - [L26] F. Fontana, A. Fusiello, M. Gobbi, V. Murino, D. Rocchesso, L. Sartor, and A. Panuccio, "A cross-modal electronic travel aid device", *Human Computer Interaction with Mobile Devices*, in *Lecture Notes in Computer Science* no. 2411, F. Paternò, editor, pp. 393-397. Springer, 2002. (Proceedings of the 4th Interaction Symposium, Mobile HCI 2002).
  - [L27] A. Panuccio, M. Bicego, V. Murino, "A Hidden Markov Model-based approach to sequential data clustering", *Structural, Syntactic and Statistical Pattern Recognition*, Lecture Notes on Computer Science 2396, T. Caelli, A. Amin, R.P.W. Duin, M. Kamel, and D. de Ridder Eds., Springer, pp. 734-742, 2002.

## 2003

---

- [L28] M. Bicego, V. Murino, M.A.T. Figueiredo, "Similarity-based Clustering of Sequences Using Hidden Markov Models", *3rd Int. Conf. on Machine Learning and Data Mining in Pattern Recognition MLDM 2003, Lecture Notes on Artificial Intelligence LNAI* 2734, P. Perner, A. Rosenfeld Eds., Springer, pp. 86-95, 2003.
- [L29] M. Bicego, M. Cristani, A. Fusiello, V. Murino, "Watershed-based Unsupervised Clustering", in *Lecture Notes on Computer Science* 2683, A. Rangarajan, M. Figueiredo, J. Zerubia Eds., Springer, pp. 83-94, 2003.

## 2004

---

- [L30] M. Cristani, M. Bicego, V. Murino, "Audio-video integration for background modelling", in *Computer Vision - ECCV 2004, Lecture Notes in Computer Science* 3022, T. Pajdla, J. Matas, Eds., pp. 202-213, Springer, 2004 (Proceedings of the 8th European Conference on Computer Vision).

## 2005

---

- [L31] U. Castellani, A. Fusiello, and V. Murino. Underwater environment modelling by fast 3D mosaicing. In A. Gagalowicz, O. Grau, and W. Philips C. Guiard, editors, *Mirage 2005 Proceedings. Computer Vision / Computer Graphics Collaboration Techniques and Applications*, pages 145-152, INRIA Rocquencourt, France, March 2005.
- [L32] U. Castellani, M. Bicego, G. Iacono, V. Murino, "3D Face Recognition Using Stereoscopic Vision", in *Lecture Notes in Computer Science* 3161, M. Tistarelli, J. Bigun, E. Gross, Eds., pp. 126-137, Springer, 2005.
- [L33] U. Castellani, C. Combi, P. Marzola, V. Murino, A. Sbarbati, M. Zampieri, "Towards Information Visualization and Clustering Techniques for MRI Data Sets", in *Lecture Notes in Artificial Intelligence LNAI* 3581, S. Miksch, et al. Eds.: *Artificial Intelligence in Medicine AIME 2005*, pp. 315–319, Springer, 2005.
- [L34] R. Gherardi, U. Castellani, A. Fusiello, V. Murino, "Optimal Parameter Estimation for MRF Stereo Matching", in *Lecture Notes in Computer Science* 3617, F. Roli et al. (Eds.): *Int. Conf. on Image Analysis and Processing ICIAP 2005*, pp. 818–825, Springer, 2005.
- [L35] S. Ceresola, A. Fusiello, M. Bicego, A. Belussi, V. Murino, "Automatic Updating of Urban

Vector Maps", in *Lecture Notes in Computer Science* 3617, F. Roli et al. (Eds.): Int. Conf. on Image Analysis and Processing ICIAP 2005, pp. 1133–1139, Springer, 2005.

---

## 2006

---

- [L36] V. Murino, M. Palmese, A. Trucco, "Processing tools for acoustic 3D images", in *Buried Waste in the Seabed: Acoustic Imaging and Bio-toxicity*, P. Blondel, A. Caiti Eds., pp. 39–64, Springer, 2006. [Book chapter](#)
- [L37] A. Caiti, V. Murino, M. Palmese, A. Trucco, M. Zakharia, "3D acoustical image analysis and feature extraction", in *Buried Waste in the Seabed: Acoustic Imaging and Bio-toxicity*, P. Blondel, A. Caiti Eds., pp. 143–164, Springer, 2006. [Book chapter](#)

---

## 2008

---

- [L38] M. Cristani, A. Perina, V. Murino, "Geo-located Image Grouping Using Latent Descriptions", in *Lecture Notes in Computer Science* Vol. 5008, 6th Int'l Conf. on Computer Vision Systems ICVS 2008, Springer, pp. 425-434, 2008.

---

## 2009

---

- [L39] A. Daducci, U. Castellani, C. Marco, P. Farace, P. Marzola, A. Sbarbati, V. Murino, "Learning Approach to Analyse Tumor Heterogeneity in DCE-MRI Data During Anti-cancer treatment", in *Lecture Notes in Computer Science (Artificial Intelligence in Medicine, AIME 2009)*, LNCS 5651, C. Combi et al. Eds., pp. 385-389 Springer, 2009.
- [L40] M.Bicego, M.Cristani, V.Murino, E.Pekalska, R.P.W.Duin, "Clustering-based construction of Hidden Markov Models for Generative Kernels", in *Lecture Notes in Computer Science* 5681, D.Cremers, Y.Boykov, A.Blake, R.Schmidt Eds. (*Int'l Wks. on Energy Minimization Methods in Computer Vision and Pattern Recognition EMMCVPR 2009*, Bonn, Germany), pp. 466-479, Sept. 2009.
- [L41] A. Perina, M.Cristani, U.Castellani, V.Murino, "A New Generative Feature Set Based on Entropy Distance for Discriminative Classification", in *Lecture Notes in Computer Science (Image Analysis and Processing, ICIAP 2009)*, LNCS 5716, P.Foggia, C.Sansone, M. Vento Eds., Springer, pp. 199-208, 2009.
- [L42] M. Farenzena, L. Bazzani, V. Murino, M. Cristani. "Towards a Subject-Centered Analysis for Automated Video Surveillance", in *Lecture Notes in Computer Science (Image Analysis and Processing, ICIAP 2009)*, LNCS 5716, P.Foggia, C.Sansone, M. Vento Eds., Springer, pp. 481-489, 2009.
- [L43] U. Castellani, E. Rossato, V. Murino, M. Bellani, G. Rambaldelli, M. Tansella, P. Brambilla. "Local Kernel for brains classification in Schizophrenia", in *Lecture Notes in Computer Science (XI Conference on Italian Association for Artificial Intelligence AlxA 2009, Reggio Emilia, Italy)*, LNCS 5883, R.Serra, R.Cucchiara Eds., Springer, pp. 112-121, 2009.
- [L44] D. S. Cheng, M. Cristani, V. Murino, "Distillation: a super-resolution approach for the selective analysis of noisy and unconstrained video", in *Machine Learning for Human Motion Analysis*, L.Wang , L.Cheng , G.Zhao, eds., IGI Global , 2009. [Book chapter](#)

---

## 2010

---

- [L45] A. Pesarin, P. Calanca, M. Cristani, V. Murino, "A generative score space for statistical

dialog characterization in social signaling", in *Structural, Syntactic, and Statistical Pattern Recognition, Lecture Notes in Computer Science 6218*, pp. 630-639, 2010.

- [L46] A. Martins, M. Bicego, V. Murino, P. Aguiar, M. Figueiredo, "Information theoretical kernels for generative embeddings based on Hidden Markov Models", in *Structural, Syntactic, and Statistical Pattern Recognition, Lecture Notes in Computer Science 6218*, pp. 463-472, 2010.
- [L47] U. Castellani, A. Perina, V. Murino, M. Bellani, G. Rambaldelli, M. Tansella and P. Brambilla, "Brain Morphometry by Probabilistic Latent Semantic Analysis", In *Lecture Notes in Computer Science 6362, Medical Image Computing and Computer-Assisted Intervention MICCAI 2010*, pp.177-184, 2010.
- [L48] A.Perina, P.Lovato, V. Murino, M. Bicego, "Biologically-aware Latent Dirichlet Allocation (BaLDA) for the Classification of Expression Microarray", in *Lecture Notes on Bioinformatics LNBI 6282*, T.M.H. Dijkstra et al. Eds., Springer (5th IAPR Int'l Conf on Pattern Recognition in Bioinformatics PRIB 2010), pp. 230–241, 2010.
- [L49] D.Tosato, M. Farenzena, M.Cristani, M.Spera, V.Murino, "Multi-class Classification on Riemannian Manifolds for Video Surveillance". In *Computer Vision ECCV 2010, Lecture Notes in Computer Science 6312*, K.Daniilidis, P.Maragos, N.Paragios Eds., pp. 378-391, 2010. [Oral presentation \(3.2% acceptance rate\)](#)
- [L50] A.Perina, N.Jojic, U.Castellani, M.Cristani, V.Murino, "Object Recognition with Hierarchical Stel Models". In *Computer Vision ECCV 2010, Lecture Notes in Computer Science 6316*, K.Daniilidis, P.Maragos, N.Paragios Eds., pp. 15-28, 2010. [Oral presentation \(3.2% acceptance rate\)](#)

## 2011

---

- [L51] Castellani U., Mirtuono P., Murino V., Bellani M., Rambaldelli G., Tansella M. and Brambilla P., "A New Shape Diffusion Descriptor For Brain Classification". In *Lecture Notes in Computer Science 6892 (Medical Image Computing and Computer-Assisted Intervention MICCAI 2011)*, pp. 426-433, 2011.
- [L52] Salvagnini P., Cristani M., Del Bue A. and Murino V., "An experimental framework for evaluating PTZ tracking algorithms", in *LNCS 6962 (8th International Conference on Computer Vision Systems ICVS 2011)*, pp. 81-90, 2011.
- [L53] Baglivo L., Del Bue A., Lunardelli M., Setti F., Murino V., De Cecco M., "A method for asteroids 3D surface reconstruction from close approach distances", in *LNCS 6962 (8th International Conference on Computer Vision Systems ICVS 2011)*, pp. 21-30, 2011.
- [L54] Sabzevari R., Del Bue A., Murino V., "Structure from Motion and Photometric Stereo for Dense 3D Shape Recovery", in *LNCS 6978 (16th International Conference on Image Analysis and Processing ICIAP 2011)*, pp. 660-669, 2011.
- [L55] Satta R., Fumera G., Roli F., Cristani M., Murino V., "Multiple Component Matching Framework for Person Re-Identification", in *LNCS 6979, 16th International Conference on Image Analysis and Processing ICIAP 2011*, 2011.
- [L56] Schuffler P., Ulas A., Castellani U., Murino V., "A multiple kernel learning algorithm for cell nucleus classification of renal cell carcinoma", in *LNCS 6978 (IEEE International Conference on Image Analysis and Processing ICIAP 2011)*, pp. 413-422, 2011.
- [L57] Gonen M., Ulas A., Schuffler P., Castellani U., Murino V., "Combining Data Sources

Nonlinearly for Cell Nucleus Classification of Renal Cell Carcinoma", in *LNCS 7005 (1st Int'l Workshop on Similarity-based Pattern Analysis and Recognition SIMBAD 2011)*, Springer, pp. 250-260, 2011.

- [L58] A. Ulas, P. Schuffler, M. Bicego, U. Castellani, V. Murino: "Hybrid Generative-Discriminative Nucleus Classification of Renal Cell Carcinoma", in *LNCS 7005 (Int'l Workshop on Similarity-based Pattern Recognition SIMBAD 2011)*, pp. 77-89, 2011.

## 2012

---

- [L59] L. Bazzani, M. Cristani, G. Pagetti, D. Tosato, G. Menegaz, and V. Murino, "Analyzing groups: a social signaling perspective", In *Video Analytics for Business Intelligence*, Studies in Computational Intelligence. Shan, C.; Porikli, F.; Xiang, T.; Gong, S. (Eds.), Springer, 2012. [Book chapter](#)
- [L60] I. Barros Barbosa, M. Cristani, A. Del Bue, L. Bazzani, V. Murino, "Re-identification with RGB-D sensors", in *Computer Vision - ECCV 2012. Workshops and Demonstrations, Lecture Notes in Computer Science 7583*, A. Fusiello, V. Murino, R. Cucchiara Eds. (1st Int'l Wks. on Re-Identification Re-Id 2012, Florence, Italy), pp. 433-442, Springer, 2012.
- [L61] A. Ulaş, M. Gönen, U. Castellani, V. Murino, M. Bellani, M. Tansella, P. Brambilla, "A Localized MKL Method for Brain Classification with Known Intra-class Variability", In *Machine Learning in Medical Imaging LNCS 7588*, 2012, pp 152-159.
- [L62] M.Cristani, A. Pesarin, A.Vinciarelli, M.Crocco, V.Murino, "Look at Who's Talking: Voice Activity Detection by Automated Gesture Analysis", In *Constructing Ambient Intelligence, Communications in Computer and Information Science Vol. 277 (Workshop of Interactive Human Behavior Analysis in Open or Public Spaces INTERHUB 2011)*, Springer, 2012, pp. 72-80.
- [L63] A. Fusiello, V. Murino, R. Cucchiara. "Editorial - Computer Vision - ECCV 2012. Workshops and Demonstrations - Proceedings", in *Lecture Notes in Computer Science 7583, 7584, and 7585*, A. Fusiello, V. Murino, R. Cucchiara (Eds.), Springer, 2012.

## 2013

---

- [L64] R. Raghavendra, M. Cristani, A. Del Bue, E. Sangineto, V. Murino, "Anomaly detection in crowded scenes: a novel framework based on Swarm Optimization and Social Force Modeling", In *Modeling, Simulation and Visual Analysis of Large Crowds, A Multidisciplinary Perspective*, S. Ali, K. Nishino, D. Manocha, and M. Shah (Eds.), Vol. 11, Springer, 2013. [Book chapter](#)
- [L65] A. Ulas, U. Castellani, M. Bicego, V. Murino, M. Bellani, M. Tansella, P. Brambilla, "Analysis of Brain Magnetic Resonance (MR) Scans for the Diagnosis of Mental Illness", in *Similarity-based Pattern Analysis and Recognition (SIMBAD 2013), Advances in Computer Vision and Pattern Recognition*, M. Pelillo (Eds.), Springer, 2013, pp. 247-287.
- [L66] P.M.Q. Aguiar, M. Bicego, U. Castellani, M.A.T. Figueiredo, A.T. Martins, V. Murino, A. Perina, A. Ulas, "On the Combination of Information Theoretic Kernels with Generative Embeddings", in *Similarity-based Pattern Analysis and Recognition (SIMBAD 2013), Advances in Computer Vision and Pattern Recognition*, M. Pelillo (Eds.), Springer, 2013, pp.67-83.
- [L67] A. Perina, M. Bicego, U. Castellani, V. Murino, "Exploiting Geometry in Counting Grids", In *Similarity-Based Pattern Recognition LNCS 7953 (SIMBAD 2013)*, E. Hancock, M.

Pelillo (Eds.), 2013, pp. 250-264.

## 2014

---

- [L68] M. Cristani, V. Murino, "Socially-Driven Computer Vision for Group Behavior Analysis", In *Registration and Recognition in Images and Videos, Studies in Computational Intelligence*, R. Cipolla, S. Battiatto, G.M. Farinella (Eds.), Springer, Volume 532, 2014, pp. 223-256. [Book chapter](#)
- [L69] L. Bazzani, M. Cristani, V. Murino, "SDALF: Modeling Human Appearance with Symmetry-Driven Accumulation of Features", in *Person Re-Identification*, S. Gong, M. Cristani, S. Yan, C.C. Loy (Eds.), Springer, 2014, pp. 43-69. [Book chapter](#)

## 2015

---

- [L70] V. Murino, E. Puppo, "Editorial - Image Analysis and Processing – ICIAP 2015. 18th International Conference – Proceedings", in *Lecture Notes in Computer Science 9279 and 9280*, V. Murino, E. Puppo Eds., Springer, 2015. [Editorial](#)
- [L71] V. Murino, E. Puppo, D. Sona, M. Cristani, C. Sansone, "Editorial - New Trends in Image Analysis and Processing – ICIAP 2015 Workshops", in *Lecture Notes in Computer Science 9281*, V. Murino, E. Puppo, D. Sona, M. Cristani, C. Sansone Eds., Springer, 2015. [Editorial](#)
- [L72] P. Lovato, M. Bicego, V. Murino, A. Perina, "Robust Initialization for Learning Latent Dirichlet Allocation", in *Similarity-Based Pattern Recognition – 3rd Int'l Workshop, SIMBAD 2015, Copenhagen, Denmark, October 12-14, 2015, Proceedings, LNCS 9370*, A. Feragen, M. Pelillo, M. Loog Eds., Springer, 2015.
- [L73] L. Dodero, F. Sambataro, V. Murino, D. Sona, "Kernel-Based Analysis of Functional Brain Connectivity on Grassmann Manifold", in *LNCS 9351, Medical Image Computing and Computer Assisted Intervention – MICCAI 2015*, N. Navab, J. Hornegger, W.M. Wells, A.F. Frangi Eds., Springer, 2015.
- [L74] C. Hilario Gomez, K. Medathati, P. Kornprobst, V. Murino, D. Sona, "Improving FREAK Descriptor for Image Classification", in *LNCS 9163, Computer Vision Systems, 10th Int'l Conference – ICVS 2015*, L. Nalpantidis, V. Krüger, J-O. Eklundh, A. Gasteratos Eds., Springer, 2015, pp. 14-23.
- [L75] A. Bhuiyan, B. Mirmahboub, A. Perina, V. Murino, "Person re-identification using robust brightness transfer functions based on multiple detections", in *LNCS 9280, V. Murino and E. Puppo Eds. (18th Int'l Conf. on Image Analysis and Processing ICIAP 2015)*, Springer, pp. 449-459, 2015.
- [L76] H. Mousavi, M. Nabi, H.K. Galoogahi, A. Perina, V. Murino, "Abnormality detection with improved histogram of oriented tracklets", in *LNCS 9280, V. Murino and E. Puppo Eds. (18th Int'l Conf. on Image Analysis and Processing ICIAP 2015)*, Springer, pp. 722-732, 2015.

## 2016

---

- [L77] H. Mousavi, H.K. Galoogahi, A. Perina, V. Murino, "Detecting Abnormal Behavioral Patterns in Crowd Scenarios", in *Toward Robotic Socially Believable Behaving Systems: Modeling Social Signals*, Vol. II, A. Esposito & L. Jain Eds., Intelligent Systems Reference Library (ISRL) Springer Series, 2016. [Book chapter](#)

- [L78] A. Crimi, L. Dodero, V. Murino, D. Sona, "Effective Brain Connectivity Through a Constrained Autoregressive Model", in *LNCS 9902, Medical Image Computing and Computer Assisted Intervention – MICCAI 2016*, S. Ourselin, L. Joskowicz, M.R. Sabuncu, G. Unal, W. Wells Eds., Springer, October 2016.
- [L79] Hà Quang Minh, Vittorio Murino, "Editorial - Algorithmic Advances in Riemannian Geometry and Applications: For Machine Learning, Computer Vision, Statistics, and Optimization", in *Algorithmic Advances in Riemannian Geometry and Applications: For Machine Learning, Computer Vision, Statistics, and Optimization*, Minh Hà Quang, V. Murino Eds., Springer, 2016. [Editorial/Preface](#)
- [L80] Hà Quang Minh, Vittorio Murino, "Introduction - Algorithmic Advances in Riemannian Geometry and Applications: For Machine Learning, Computer Vision, Statistics, and Optimization", in *Algorithmic Advances in Riemannian Geometry and Applications: For Machine Learning, Computer Vision, Statistics, and Optimization*, Minh Hà Quang, V. Murino Eds., Springer, 2016. [Introduction](#)
- [L81] Hà Quang Minh, Vittorio Murino, "From Covariance Matrices to Covariance Operators: Data Representation from Finite to Infinite-Dimensional Settings", in *Algorithmic Advances in Riemannian Geometry and Applications: For Machine Learning, Computer Vision, Statistics, and Optimization*, Minh Hà Quang, V. Murino Eds., Springer, pp. 115-143, 2016. [Book chapter](#)
- [L82] H. Rabiee, J. Haddadnia, H. Mousavi, M. Nabi, V. Murino, N. Sebe, "Crowd behavior representation: an attribute-based approach". SpringerPlus (2016) 5: 2114. <https://doi.org/10.1186/s40064-016-3754-4> (erratum).

## 2017

---

- [L83] Mohammadi S., Setti F., Perina A., Cristani M., Murino V., "Groups and Crowds: Behaviour Analysis of People Aggregations." In: *Braz J. et al. (eds), Computer Vision, Imaging and Computer Graphics Theory and Applications. VISIGRAPP 2016. Communications in Computer and Information Science*, vol 693. Springer, Cham, 2017.
- [L84] J. Cavazza, P. Morerio, V. Murino, "A Compact Kernel Approximation for 3D Action Recognition", in *LNCS 10484, S. Battiato, G. Gallo, R. Schettini, F. Stanco Eds. (19th Int'l Conf. on Image Analysis and Processing ICIAP 2017)*, Springer, pp. 211-222, 2017. [Special Mention Best Paper Award](#)
- [L85] A. Roy, B. Banerjee, V. Murino, "Discriminative Dictionary Design for Action Classification in Still Images", in *LNCS 10484, S. Battiato, G. Gallo, R. Schettini, F. Stanco Eds., (19th Int'l Conf. on Image Analysis and Processing ICIAP 2017)*, Springer, pp. 160-170, 2017.
- [L86] A. Zunino, J. Cavazza, V. Murino "Revisiting Human Action Recognition: Personalization vs. Generalization", in *LNCS 10484, S. Battiato, G. Gallo, R. Schettini, F. Stanco Eds., (19th Int'l Conf. on Image Analysis and Processing ICIAP 2017)*, Springer, pp. 469-481, 2017.
- [L87] V. Murino, M. Cristani, S. Shah, S. Savarese, "The Group and Crowd Interdisciplinary Challenge", in *Group and Crowd Behavior for Computer Vision*, V. Murino, M. Cristani, S. Shah, S. Savarese (Eds), Academic Press, pp. 1-11, 2017. [Book chapter](#)
- [L88] S. Mohammadi, H.K. Galoogahi, A. Perina, V. Murino, "Physics-Inspired Models for Detecting Abnormal Behaviors in Crowded Scenes", in *Group and Crowd Behavior for Computer Vision*, V. Murino, M. Cristani, S. Shah, S. Savarese (Eds), Academic Press, pp.

---

253-272, 2017. [Book chapter](#)

- [L89] M. Cristani, V. Murino, "Person Re-Identification", in *Academic Press Library in Signal Processing, Image and Video Processing and Analysis and Computer Vision*, Volume 6 (1st Edition), R. Chellappa and S. Theodoridis Eds., 2017. [Book chapter](#)

## 2018

---

- [L90] N.C. Garcia, P. Morerio, V. Murino. "Modality Distillation with Multiple Stream Networks for Action Recognition". In: V.Ferrari, M.Hebert, C.Sminchisescu, Y.Weiss (eds) *Computer Vision – ECCV 2018. ECCV 2018 (European Conf. on Computer Vision 2018)*, Lecture Notes in Computer Science, vol 11212. Springer, Cham. [https://doi.org/10.1007/978-3-030-01237-3\\_7](https://doi.org/10.1007/978-3-030-01237-3_7)

- [L91] S. Aslani, M. Dayan, V. Murino, D. Sona, "Deep 2D Encoder-Decoder Convolutional Neural Network for Multiple Sclerosis Lesion Segmentation in Brain MRI". In: *Lecture Notes in Computer Science LNCS 11383 (Int'l MICCAI Brainlesion Workshop BrainLes 2018)*, pp. 132-141, 2018.

## 2019

---

- [L92] N.C. Garcia, P. Morerio, V. Murino, "Cross-modal Learning by Hallucinating Missing Modalities in RGB-D", in *Multimodal Scene Understanding. Algorithms, Applications and Deep Learning*, M.Y. Yang, B. Rosenhahn, V. Murino (Eds.), Academic Press, pp. 383-401, Paperback ISBN: 9780128173589, 2019. [Book chapter](#)

- [L93] M.Y. Yang, B. Rosenhahn, V. Murino, "Introduction to Multimodal Scene Understanding", in *Multimodal Scene Understanding. Algorithms, Applications and Deep Learning*, M.Y. Yang, B. Rosenhahn, V. Murino (Eds.), Academic Press, pp. 1-7, Paperback ISBN: 9780128173589, 2019. [Editorial/Book chapter](#)

## 2021

---

- S.A. Bargal, A. Zunino, V. Petsiuk, V. Murino, S. Sclaroff, K. Saenko, "Beyond the Visual Analysis of Deep Model Saliency." In *LNAI 13200 xxAI - Beyond explainable Artificial Intelligence*, A.Holzinger, R.Goebel, T.Moon, K-R.Muller, W.Samek (Eds.), Springer, 2021. *In press*

## EDITED BOOKS

### 2012

---

- [EB1] Andrea Fusiello, Vittorio Murino, Rita Cucchiara (Eds.). *Computer Vision - ECCV 2012. Workshops and Demonstrations* - Florence, Italy, October 7-13, 2012, Proceedings, Part I. *Lecture Notes in Computer Science* 7583, Springer, ISBN 978-3-642-33862-5, 2012.
- [EB2] Andrea Fusiello, Vittorio Murino, Rita Cucchiara (Eds.). *Computer Vision - ECCV 2012. Workshops and Demonstrations* - Florence, Italy, October 7-13, 2012, Proceedings, Part II. *Lecture Notes in Computer Science* 7584, Springer, ISBN 978-3-642-33867-0, 2012.
- [EB3] Andrea Fusiello, Vittorio Murino, Rita Cucchiara (Eds.). *Computer Vision - ECCV 2012. Workshops and Demonstrations* - Florence, Italy, October 7-13, 2012, Proceedings, Part III. *Lecture Notes in Computer Science* 7585, Springer, ISBN 978-3-642-33884-7, 2012.

## 2015

---

- [EB4] Vittorio Murino, Enrico Puppo (Eds.). *Image Analysis and Processing – ICIAP 2015. 18th International Conference* - Genoa, Italy, September 7-11, 2015, Proceedings, Part I. *Lecture Notes in Computer Science* 9279, Springer, ISBN 978-3-319-23231-7, 2015.
- [EB5] Vittorio Murino, Enrico Puppo (Eds.). *Image Analysis and Processing – ICIAP 2015. 18th International Conference* - Genoa, Italy, September 7-11, 2015, Proceedings, Part II. *Lecture Notes in Computer Science* 9280, Springer, ISBN 978-3-319-23234-8, 2015.
- [EB6] Vittorio Murino, Enrico Puppo, Diego Sona, Marco Cristani, Carlo Sansone (Eds.). *New Trends in Image Analysis and Processing – ICIAP 2015 Workshops. ICIAP 2015 International Workshops, BioFor, CTMR, RHEUMA, ISCA, MADiMa, SBMI, and QoEM* - Genoa, Italy, September 7-8, 2015, Proceedings, *Lecture Notes in Computer Science* 9281, Springer, ISBN 978-3-319-23222-5, 2015.

## 2016

---

- [EB7] *Algorithmic Advances in Riemannian Geometry and Applications: For Machine Learning, Computer Vision, Statistics, and Optimization*. Hà Quang Minh and Vittorio Murino (Eds), Springer, Berlin, 208 pages, ISBN 978-3-319-45025-4, 2016.

## 2017

---

- [EB8] *Group and Crowd Behavior for Computer Vision*. 1st Edition. Vittorio Murino, Marco Cristani, Shishir Shah, Silvio Savarese (Eds), Academic Press, 438 pages, ISBN: 9780128092767, 2017.

## 2019

---

- [EB9] *Multimodal Scene Understanding. Algorithms, Applications and Deep Learning*, M.Y. Yang, B. Rosenhahn, V. Murino (Eds.), Academic Press, 525 pages, Paperback ISBN: 9780128173589, 2019.

## CO-AUTHORED BOOKS

## 2017

---

- [CB1] Hà Quang Minh and Vittorio Murino, *Covariances in Computer Vision and Machine Learning*, Synthesis Lectures on Computer Vision, Morgan & Claypool, Vol. 7, No. 4, Pages 1-170 (<https://doi.org/10.2200/S00801ED1V01Y201709COV011>). Paperback ISBN: 9781681730134, November 2017.

---

## INTERNATIONAL CONFERENCES

### **2000-**

---

- [B1] V.Murino, B.Bianco, A.Oneto, T.Tommasi, A.Diaspro, "Three-dimensional reconstruction and lateral views in optical microscopy", *Proc. of SPIE Conf. on Visual Communications and Image Processing '90*, Vol. 1360, Lausanne, Switzerland, Oct. 1990, pp. 652-657.
- [B2] V.Murino, G.L.Foresti, C.Regazzoni, R.Zunino, "Map-driven image interpretation by associative model indexing", *IAPR Wks. on Machine Vision Applications, MVA '90*, Tokyo, Japan, Nov. 1990, pp. 385-388.
- [B3] V.Murino, F.Arduini, R.Cabri, G.L.Foresti, C.Regazzoni, "A numerical and symbolic fusion method for interpretation of image sequences", *Proc. IEEE Int. Conf. on Acoustic Speech and Signal Processing, ICASSP 1991*, Toronto, Canada, May 1991, pp. 2477-2480.
- [B4] V.Murino, "Perceptual Goal Integration for driving a KB Recognition System", *Proc. of the Symp. on Image Processing: Applications and Trends*, Genova, Italy, June 1991, pp. 219-228.
- [B5] V.Murino, C.S.Regazzoni, "A Distributed Algorithm for Adaptive Regulation of Image Processing Parameters", *Proc. IEEE Int. Conf. on System, Man, and Cybernetics*, Charlottesville, USA, Oct. 1991, pp. 259-264.
- [B6] V.Murino, C.S.Regazzoni, G.L.Foresti, R.Zunino, "Associative and Symbolic Algorithm for Viewpoint Independent Object Recognition" *IEEE Int. Conf. on System, Man, and Cybernetics*, Charlottesville, USA, Oct. 1991, pp.117-122.
- [B7] V.Murino, F.Brenta, A.Miano, "Selective Image Processing for Regulation of Acquisition Camera Parameters", *Proc. on ISSPA '92, Signal Processing and its Applications*, Gold Coast, Australia, August 1992, pp. 89-92.
- [B8] V.Murino, C.S.Regazzoni, "Multilevel GMRF-based Segmentation of Image Sequences". *Proc. IAPR Int. Conf. on Pattern Recognition*, Vol.II, The Hague, The Netherlands, Sept. 1992, pp. 713-716.
- [B9] V.Murino, S.Rebollini, G.L. Foresti, C.S.Regazzoni, "Multiple Geometrical Filters for 3D Scale Invariant Image Representation of Planar Surfaces", *Proc. of the IEEE-SP International Symposium on Time Frequency and Time-Scale Analysis*, Victoria, BC, Canada, Oct. 1992, pp. 531-534.
- [B10] V.Murino, C.S.Regazzoni, "Multistage Hough Transform for Recognition of Planar Objects", *Proc. 8th IEEE Workshop on Image and Multidimensional Signal Processing*, Cannes, France, Sept. 1993, pp. 198-199.
- [B11] V.Murino, C.S.Regazzoni, G.L. Foresti, "Real-time Adaptive Regulation of a Visual Camera for Automatic Investigation of Changing Environments", *Proc. IEEE International Conference on Industrial Electronics (IECON 93)*, Hawaii (USA), Nov. 1993, pp. 1633-1638.
- [B11b] C.S. Regazzoni, A. Tesei, V. Murino, " A real-time vision system for crowding monitoring", *Proc. IEEE International Conference on Industrial Electronics (IECON 93)*, Hawaii (USA), Nov. 1993, pp. 1860 - 1864.
- [B12] V. Murino, A. Trucco, G. Tacconi, "Space-Varying Automatic Focalization in the Focused Beamforming Process," *Proceeding of the Second European Conference on Underwater*

*Acoustics*, Copenhagen (DK), July 1994, pp. 697-702.

- [B13] V. Murino, A. Trucco, G. Tacconi, "Focused Beamforming for Underwater Imaging: Depth of Field and Range Resolution Optimization", *IEEE Int. Conf. Oceans 94 Osates*, Brest (F), Sept. 1994, pp. 352-357.
- [B14] V. Murino, J.A.S. Victor, G. Vernazza, J. Sentieiro, "Depth Estimation by an Adaptive Depth from Motion Algorithm", *IEEE Int. Conf. Oceans 94 Osates*, Brest (F), Sept. 1994, pp. 193-198.
- [B15] V. Murino, A. Trucco, G. Vernazza, "Underwater 3D Imaging by FFT Dynamic Beamforming", *1st IEEE Int. Conf. on Image Processing*, Austin, Texas (USA), Nov. 1994, pp. 890-894.
- [B16] V. Murino, C.S. Regazzoni, "Visual Surveillance By Depth From Focus", *IEEE Int. Conf. on Industrial Electronics*, Bologna, Sept. 1994, pp. 998-1003.
- [B17] V. Murino, A. Trucco, "Acoustic Image Improvement by Confidence Levels", *1994 IEEE Ultrasonics Symposium*, Cannes (Francia), Nov. 1994, Vol. 3, pp. 1367-1370.
- [B18] V. Murino, "A Stochastic Graph-based Technique for Grouping of Inhomogeneous Image Primitives", *1994 IEEE Int. Conf. on Multisensor Fusion and Integration for Intelligent Systems*, Las Vegas, Oct. 1994, pp. 675-682.
- [B19] V. Murino, "Simulated Annealing Approach for the Design of Unequally Spaced Arrays", *Int. Conf. on Acoustics, Speech, and Signal Processing '95, ICASSP 95*, Detroit, May 1995, pp. 3627-3630.
- [B20] V. Murino, A. Trucco, "The Nonlinear Effects of the Envelope Extraction in Beamforming Imaging Systems", *1995 IEEE Wks. on Nonlinear Signal and Image Processing*, Neos Marmaras, Greece, June 1995, Vol. I, pp. 222-225.
- [B21] V. Murino, C. Ottonello, S. Pagnan, "HOS feature selection for texture classification", *Int. Conf. on Quality Control by Artificial Vision*, Le Creusot, France, May 1995, pp. 300-307.
- [B22] V. Murino, C. Ottonello, A. Trucco, "A HOS-Based Approach for Underwater Acoustic Imaging Improvement", *9th Int. Symp. on Unmanned Untethered Submersible Technology*, Durham, USA, Sept. 1995, pp. 458-467.
- [B23] V. Murino, E. Frumento, F. Gabino, A. Trucco, "A Markov Random Fields Approach for Restoration of Underwater Acoustic Images", *OCEANS '95 MTS/IEEE*, San Diego, USA, Oct. 1995, pp. 1900-1906.
- [B24] V. Murino, A. Trucco, "Hybrid Approach for Accurate Echo Detection in the Formation of Acoustic Images", *OCEANS '95 MTS/IEEE*, San Diego, USA, Oct. 1995, pp. 1877-1882.
- [B25] V. Murino, A. Trucco, "Ultrasonic Image Improvement by a Cooperative Approach", *Int. Conf. on Sonar Signal processing*, Loughborough, UK, Dec. 1995, pp. 59-68.
- [B26] V. Murino, A. Trucco, "Beam Pattern Analysis under Generalised Conditions", *European Conf. on Underwater Acoustics*, Vol. I, Heraklio, Crete (GR), June 1996, pp. 525-530.
- [B27] V. Murino, A. Trucco, "Significance of Envelope Detection in Underwater Acoustic Imaging Systems", *IEEE Symp. on Autonomous Underwater Vehicle Technology AUV '96*, Monterey, CA, USA, June 1996, pp. 179-184.

- 
- [B28] V.Murino, A.Trucco, C.Otonello, "Spurious Effect Reduction by the Reconstruction of Acoustic Images from Bispectrum", *IEEE Int. Conf. on Image Processing ICIP '96*, Lausanne, CH, Sept. 1996, pp. 571-574.
- [B29] V.Murino, "Depth from Defocus with simple camera calibration", V Convegno AI\*IA "Cibernetica e Machine Learning", Napoli, Sept. 1996, pp. 149-153.
- [B30] V. Murino, G.L. Foresti, A.Trucco, "Object Pose Estimation in Underwater Acoustic Images", *IEEE Int. Conf. on Image Processing ICIP '97*, Santa Barbara, CA, USA, Vol. I, pp. 873-876, Oct. 1997 .
- [B31] V. Murino, A. Trucco, "Coupled Markov Random Fields for Edge and Region Extraction in Underwater Acoustic Images", *AI\*IA/IAPR Workshop on Artificial Intelligence and Pattern Recognition Techniques for Computer Vision*, Ferrara, April 1998, pp. 75-80.
- [B32] V. Murino, A. Trucco, "Edge/Region-based Segmentation and Reconstruction of Underwater Acoustic Images by Markov Random Fields", *IEEE Int. Conf. On Computer Vision and Pattern Recognition CVPR '98*, Santa Barbara, CA, USA, June 1998, pp. 408-413.
- [B33] V. Murino, A. Grion, S. Bianchini, "A Geometric Approach to the Segmentation and Reconstruction of Acoustic Three-Dimensional Data", *OCEANS '98 MTS/IEEE*, Nice, France, Sept. 1998, pp. 582-586.
- [B34] R. Giannitrapani, V. Murino, "Augmented Representation of Underwater Scenes by Segmentation and Reconstruction of 3D Acoustic Images", *IEEE Multimedia Systems '99, Int. Conf. on Multimedia Computing and Systems ICMCS '99*, Firenze, June 1999, pp. 1036-1037.
- [B35] R. Giannitrapani, V. Murino, A. Trucco, "Segmentation of Underwater 3D Acoustical Images for Augmented and Virtual Reality Applications," *Int. Conf. Oceans '99 MTS/IEEE, Seattle, WA (USA)*, pp. 459-465, September 1999.
- [B36] V. Murino, A. Fusiello, R. Giannitrapani, V. Isaia, "Virtual Environment Modeling by Integrated Optical and Acoustic Sensing", *2nd Int. Conf. on 3-D Digital Imaging and Modeling 3DIM '99*, Ottawa, Canada, pp. 437-446, October 1999.
- [B37] V. Murino, R. Giannitrapani, "Three-Dimensional Skeleton Extraction by Point Set Contraction", *IEEE Int. Conf. on Image Processing ICIP '99*, Kobe, Japan, pp. 565-569, October 1999.
- [B38] A. Trucco, S. Di Serio, V. Murino, "Buried Object Detection by Auto-Regressive Pre-Whitening," *Int'l Conf. Oceans '99 MTS/IEEE, Seattle, WA (USA)*, pp. 126-132, September 1999.
- [B39] V. Murino, A. Fusiello, N. Iuretigh, E. Puppo, "3D Mosaicing for Environment Reconstruction", *15th Int. Conf. on Pattern Recognition*, Barcelona, Spain, pp. 362-366, Sept. 2000.

## 2001

---

- [B40] V. Murino, U. Castellani, L. Ronchetti, A. Fusiello, "Reconstruction of Complex Environments by Robust Pre-aligned ICP", *3rd Int. Conf. on 3-D Digital Imaging and Modeling 3DIM '01*, Quebec City, Canada, pp. 187-194, May 2001.
- [B41] M. Bicego, V. Murino, "2D Shape Recognition by Hidden Markov Models", *Int'l Conf. on*

---

*Image Analysis and Processing ICIAP 2001*, Palermo, Italy, pp. 20-24, Sept. 2001.

- [B42] A. Valinetti, A. Fusiello, V. Murino, "Model tracking for video-based virtual reality", *Int'l Conf. on Image Analysis and Processing ICIAP 2001*, Palermo, Italy, pp. 372-376, Sept. 2001.
- [B43] L. Tao, V. Murino, G. Medioni, "A Tensor Voting Approach for the Hierarchical Segmentation of 3-D Acoustic Images", *1<sup>st</sup> Int. Symp. On 3D Data Processing, Visualization, and Transmission*, Padova, Italy, pp. 126-135, June 2002.
- [B44] V. Murino, U. Castellani, A. Fusiello, "Disparity map restoration by integration of confidence in Markov random fields models", *IEEE Int. Conf. on Image Processing ICIP 2001*, Vol. 2, pp. 29-32, 2001.

## 2002

---

- [B45] V. Murino, U. Castellani, A. Etrari, A. Fusiello, "Registration of very time-distant aerial images", *IEEE Int. Conf. on Image Processing ICIP 2002*, Vol. III, pp. 989-992, Rochester, NY, September 22-25, 2002.
- [B46] A. Fusiello, A. Panuccio, V. Murino, F. Fontana, D. Rocchesso, "A multimodal electronic travel aid device", *IEEE International Conference on Multimodal Interfaces, ICMI '02*, Pittsburgh, PA, USA, October 2002, pp. 39-45.
- [B47] S. Calderer, S. Ceglie, A. Fusiello, V. Murino, "Parallax-based view synthesis from uncalibrated images", *7th International Fall Workshop Vision, Modeling, And Visualization 2002*, Erlangen, Germany, pp. 217-224, November 2002.
- [B48] M. Cristani, M. Bicego, V. Murino, "Integrated Region- and Pixel-based Approach to Background Modelling", *IEEE Wks. on Motion and Video Computing*, Orlando, FL, pp. 3-8, Dec. 2002.

## 2003

---

- [B49] M. Bicego, S. Dalfini, V. Murino, "Extraction of geographical entities from aerial images", *Proc. of IEEE-ISPRS Workshop on Remote Sensing and Data fusion over Urban Areas URBAN '03*, Berlin, Germany, pp 125-128, June 2003.
- [B50] U. Castellani, V. Murino, "A versatile 3D modelling system based on skeleton extraction", *Proc. of the Conf. Model-based Imaging, Rendering, Image analysis, and Graphical special Effects MIRAGE 2003*, Rocquencourt, France, pp. 129-137, March 2003.
- [B51] A. Caiati, V. Murino, M. Palmese, A. Trucco, "Object Reconstruction and Feature Extraction from 3-D Underwater Acoustic Scattering Measurements," *10th Int. Congress on Sound and Vibration*, Stockholm (Sweden), pp. 2449-2456, July 2003.
- [B52] M. Bicego, S. Dalfini, G. Vernazza, V. Murino, "Automatic Road Extraction from Aerial Images by Probabilistic Contour Tracking", *IEEE Int. Conf. on Image Processing ICIP 2003*, Vol. 3, pp. 585-588, Sett. 2003.
- [B53] A. Fusiello, M. Aprile, R. Marzotto, V. Murino, "Mosaic of a Video Shot with Multiple Moving Objects", *IEEE Int. Conf. on Image Processing ICIP 2003*, Vol. 2, pp. 307-310, Sett. 2003.

- 
- [B54] M. Bicego, U. Castellani, V. Murino, "Using Hidden Markov Models and Wavelets for face recognition", *Int'l. Conf. on Image Analysis and Processing ICIAP 2003*, Mantova, Italy, pp. 52-56, Sett. 2003.
  - [B55] A. Fusiello, S. Calderer, S. Ceglie, N. Mattern, V. Murino, "View Synthesis from Uncalibrated Images using Parallax", *Int'l Conf. on Image Analysis and Processing ICIAP 2003*, Mantova, Italy, pp. 146-151, Sett. 2003.
  - [B56] M. Cristani, M. Bicego, V. Murino, "Multi-level Background Initialization using Hidden Markov Models", *First ACM SIGMM International Workshop on Video Surveillance*, Berkeley, CA, USA, pp. 11-20, Nov. 2003.
  - [B57] M. Bicego, G. Iacono, V. Murino, "Face Recognition with Multilevel B-Spline and Support Vector Machines", *ACM SIGMM 2003 Multimedia Biometrics Methods and Applications Workshop*, Berkeley, CA, USA, pp. 17-24, Nov. 2003.

## 2004

---

- [B58] R. Marzotto, A. Fusiello, V. Murino, "High Resolution Video Mosaicing with Global Alignment", *Int'l Conf. on Computer Vision and Pattern Recognition CVPR 2004*, Washington D.C., USA, June 2004, Vol. 1, pp. 692-698.
- [B59] M. Cristani, M. Bicego, V. Murino, "On-line adaptive background modelling for audio surveillance", *Int'l Conf. on Pattern Recognition ICPR 2004*, Cambridge, UK, Vol. 2, pp. 399-402, August 2004.
- [B60] I.A. Rossi, M. Bicego, V. Murino, "Statistical classification of raw textile defects", *Int'l Conf. on Pattern Recognition ICPR 2004*, Cambridge, UK, Vol. 4, pp. 311-314, August 2004.
- [B61] M. Cristani, D.S. Cheng, V. Murino, D. Pannullo, "Distilling Information with Super-Resolution for Video Surveillance", *2<sup>nd</sup> ACM International Workshop on Video Surveillance and Sensor Networks*, New York, USA, October 2004, pp. 2-11.
- [B62] U. Castellani, A. Fusiello, V. Murino, L. Papaleo, E. Puppo, S. Repetto, M. Pittore, "Efficient On-line Mosaicing from 3D Acoustical Images", *Int. Conf. Oceans '04 MTS/IEEE*, Kobe, Japan, pp. 865-872, November 2004.
- [B63] M. Aprile, A. Colombari, A. Fusiello, V. Murino, "Segmentation and tracking of multiple objects in video sequences", *5th International Workshop on Image Analysis for Multimedia Interactive Services WIAMIS 2004*, Lisboa, Portugal, April 2004.
- [B64] A. Sanson, U. Castellani, A. Fusiello, V. Murino, "Fast model tracking with multiple cameras for augmented reality", *ACM Symposium on Virtual Reality Software and Technology VRST '04*, Hong Kong, November 2004.

## 2005

---

- [B65] D.S. Cheng, V. D'Amato, V. Murino, "Wavelet-based Processing of EEG Data for Brain-Computer Interfaces", *Proceedings of IEEE Workshop on Vision for Human-Computer Interactions V4HCI*, San Diego, USA, June 2005.
- [B66] A. Colombari, M. Cristani, V. Murino, A. Fusiello, "Exemplar-based Background Model Initialization", *Proceedings of ACM Workshop on Video Surveillance and Sensor Networks VSSN 2005*, Singapore, pp. 29-36, November 2005.

- 
- [B67] Colombari, A. Fusiello, V. Murino, "Uncalibrated Interpolation of Rigid Displacements for View Synthesis", *IEEE International Conference on Image Processing ICIP 2005*, Genova, Italy, Vol. I, pp. 1049-1052, September 2005.
- [B68] A. Colombari, A. Fusiello, V. Murino, "Continuous Parallax Adjustment for 3D-TV", *2<sup>nd</sup> IEE Int'l Conf. on Visual Media Production*, December 2005, London, UK, pp. 192-198.

## 2006

---

- [B69] U. Castellani, M. Cristani, V. Murino, "3D Data Segmentation Using a Non-Parametric Density Estimation Approach", *Eurographics Italian Chapter Conference 2006*, pp. 99-103, 2006.
- [B70] M. Cristani, M. Bicego, V. Murino, "Audio-Visual Foreground Extraction for Event Characterization", *International Workshop on Semantic Learning Applications in Multimedia SLAM 2006* (in conjunction with *IEEE CVPR 2006*, New York, USA).
- [B71] A. Colombari, A. Fusiello, V. Murino, "Background Initialization in Cluttered Sequences", *5th Workshop on Perceptual Organization in Computer Vision POCV 2006* (in conjunction with *IEEE CVPR 2006*, New York, USA).
- [B72] M. Cristani, U. Castellani, V. Murino, "Adaptive Feature Integration for Segmentation of 3D Data by Unsupervised Density Estimation", *Int'l Conf. on Pattern Recognition ICPR 2006*, vol.4, pp. 21-24, Hong Kong, August 2006.
- [B73] U. Castellani, M. Cristani, V. Murino, "Acoustic Range Image Segmentation by Effective Mean Shift", *Int'l Conf. on Image Processing ICIP 2006*, Atlanta, USA, October 2006.
- [B74] M. Figueiredo, D.S. Cheng, and V. Murino, "Clustering under prior knowledge with application to image segmentation", *Neural Information Processing Systems NIPS 2006*, Vancouver, Canada, December 2006.

## 2007

---

- [B75] M. Cristani, V. Murino, "A Spatial Sampling Mechanism for Effective Background Subtraction", *Int'l Conf. on Computer Vision Theory and Applications, VISAPP 2007*, Vol.2 (Image Understanding, Motion, Tracking and Stereo Vision), March 2007, pp. 403-410.
- [B76] A. Perina, M. Cristani, G. Malerba, L. Xumerle, V. Murino, P.F. Pignatti, "Unsupervised Haplotype Reconstruction and LD Blocks Discovery in a Hidden Markov Framework", *Proceedings of Computational Intelligence Methods for Bioinformatics and Biostatistics workshop*, Portofino, Italy, pp. 659-665, June 2007.
- [B77] M. Cristani, V. Murino, "Time-dependent interactive graphical models for human activity analysis", *Int'l Workshop on Advances in Pattern Recognition, IWAPR 2007*, Plymouth, UK, July 2007, pp. 109-118.
- [B78] A. Perina, M. Cristani, V. Murino, "Natural scene categorization by hierarchical extraction of tipicality patterns", *IEEE Int'l Conf. on Image Analysis and Processing, ICIAP 2007*, Modena, September 2007, pp. 801-806.
- [B79] M. Bicego, M. Cristani, V. Murino, "Sparseness Achievement with Hidden Markov Models for 2D shape analysis", *IEEE Int'l Conf. on Image Analysis and Processing, ICIAP 2007*, Modena, September 2007, pp. 67-72. [Best Poster Award](#)

---

## 2008

---

- [B80] M.Cristani, A.Perina, U.Castellani and V.Murino, "Geo-located image categorization and location recognition", *Int'l Wks on Image Mining Theory and Applications, IMTA 2008*, Madeira, PT, 2008, pp. 93-102.
- [B81] M. Cristani, V. Murino, "Background subtraction with adaptive spatio-temporal neighborhood analysis", *Int'l Conf. on Computer Vision Theory and Applications, VISAPP 2008*, Madeira, PT, Vol. 2, pp. 484-489.
- [B82] M. Cristani, A. Perina, U. Castellani, V. Murino, "Geo-located image analysis using latent representations", *IEEE Computer Vision and Pattern Recognition CVPR 2008*, Anchorage, Alaska, USA.
- [B83] U. Castellani, M. Cristani, X. Gong, A.K. Jain, V. Murino, "Sparse point statistical characterization for 3D face analysis", *IEEE Computer Society Workshop on Biometrics* (in association with CVPR 2008), Anchorage, Alaska, USA.
- [B84] M. Cristani, A. Perina, U. Castellani, V. Murino, "Content Visualization and Management of Geo-located Image Databases", *ACM SIGCHI CHI 2008 (Work in Progress)*, Florence, Italy, pp. 2823-2828.
- [B85] A. Perina, M. Cristani, V. Murino, "Unsupervised Learning of saliency concepts for image classification and retrieval", *13th Ibero-american Congress on Pattern Recognition (CIARP 2008)*, Havana, Cuba, September 2008.
- [B86] A. Perina, M. Cristani, V. Murino, N. Jojic, "Capturing video structure with mixture of probabilistic index maps", *ECCV workshop on Machine Learning for Vision-based Motion Analysis*, Marseille, France, October 2008.
- [B87] A. Pesarin, M. Cristani, V. Murino, C. Drioli, A. Perina, "A statistical signature for automatic dialogue classification", *International Conference on Pattern Recognition ICPR 2008*, Tampa, FL, USA, Dec. 2008.

---

## 2009

---

- [B88] D. Bagni, P. Zoratti, R. Marzotto, A. Colombari, V. Murino, "Automotive Driver Assistance System Development: Simplifying the Transition from Simulink to FPGA", *Embedded World Conference 2009*, Nuremberg, Germany, March 2009.
- [B89] N. Jojic, A. Perina, M. Cristani, V. Murino, B. Frey, "Stel component analysis: Modeling spatial correlations in image class structure", *IEEE Computer Vision and Pattern Recognition CVPR 2009*, Miami, FL, USA, June 2009.
- [B90] L. Bazzani, D. Bloisi, V. Murino, "A Comparison of Multi Hypothesis Kalman Filter and Particle Filter for Multi-target Tracking", *11th IEEE Int'l Workshop on Performance Evaluation of Tracking and Surveillance PETS 2009*, Miami, FL, USA, June 2009.
- [B91] M. Cristani, A. Pesarin, C. Drioli, A. Tavano, A. Perina, V. Murino, "Auditory Dialog Analysis and Understanding by Generative Modelling of Interactional Dynamics", *2nd IEEE Workshop on CVPR for Human communicative Behavior analysis (CVPR4HB)*, Miami, FL, USA, June 2009.
- [B92] D.S. Cheng, M. Bicego, U. Castellani, S. Cerruti, M. Bellani, G. Rambaldelli, M. Atzori, P. Brambilla, V. Murino, "Schizophrenia classification using regions of interest in brain MRI", *Intelligent Data Analysis in Biomedicine and Pharmacology IDAMAP 2009*, Verona, July

2009.

- [B93] D.S. Cheng, M. Bicego, U. Castellani, M. Cristani, S. Cerruti, M. Bellani, G. Rambaldelli, M. Aztori, P. Brambilla, V. Murino, "A Hybrid Generative/Discriminative Method for Classification of Regions of Interest in Schizophrenia Brain MRI", *MICCAI Workshop on Probabilistic Models for Medical Image Analysis (PMMIA 2009)*, London, UK, Sept. 2009.
- [B94] A. Perina, M. Cristani, U. Castellani, V. Murino, N. Jojic, "A hybrid generative/discriminative classification framework based on free-energy terms", *Int'l Conf. on Computer Vision ICCV 2009*, Kyoto, Japan, Oct. 2009.
- [B95] A. Carli, M. Bicego, S. Baldo, V. Murino, "Non-linear Generative Embeddings for Kernels on Latent Variable Models", *ICCV workshop Subspace 2009*, Kyoto, Japan, Sept. 2009.
- [B96] L. Bazzani, M. Cristani, M. Bicego, V. Murino, "Online Subjective Feature Selection for Occlusion Management in Tracking Applications", *Int'l Conf. on Image Processing ICIP '09*, Il Cairo, Egypt, Nov. 2009.
- [B97] A. Perina, M. Cristani, V. Murino, N. Jojic, "Free energy score space", *Neural Information Processing Systems NIPS 2009*, Vancouver, Canada, Dec. 2009.
- [B98] M. Farenzena, A. Tavano, L. Bazzani, D. Tosato, G. Paggetti, G. Menegaz, V. Murino, M. Cristani, "Social Interactions by Visual Focus of Attention in a Three-Dimensional Environment", *Wks on Pattern Recognition and Artificial Intelligence for Human Behaviour Analysis (PRAI\*HBA)*, Reggio Emilia, Italy, Dec. 2009.

## 2010

---

- [B99] A. Carli, U. Castellani, M. Bicego, V. Murino, "Dissimilarity-based Representation for Local Parts", *Workshop on Cognitive Information Processing, CIP 2010*, June 2010.
- [B100] M. Farenzena, L. Bazzani, A. Perina, V. Murino, M. Cristani, "Person re-identification by symmetry-driven accumulation of local features", *IEEE Conference on Computer Vision and Pattern Recognition CVPR 2010*, San Francisco, USA, June 2010.
- [B100b] S. Martelli, R. Marzotto, A. Colombari, V. Murino, "FPGA-based robust ellipse estimation for circular road sign detection", *IEEE Conf. on Computer Vision and Pattern Recognition Workshops CVPRW 2010*, San Francisco, USA, June 2010.
- [B101] M. Cristani, V. Murino, A. Vinciarelli, "Socially intelligent surveillance and monitoring: analysing social dimensions of physical space", *1<sup>st</sup> Int'l Workshop on Socially Intelligent Surveillance and Monitoring SISM 2010*, San Francisco, USA, June 2010.
- [B102] L. Bazzani, M. Cristani, M. Farenzena, A. Perina, V. Murino, "Multiple-shot person re-identification by HPE signature", *Int'l Conf. on Pattern Recognition ICPR 2010*, Istanbul, Turkey, August 2010. [IBM Best Student Paper Award \(Track: Computer Vision\)](#)
- [B103] D. Tosato, M. Farenzena, M. Cristani, V. Murino, "A re-evaluation of pedestrian detection on Riemannian manifolds", *Int'l Conf. on Pattern Recognition ICPR 2010*, Istanbul, Turkey, August 2010.
- [B104] A. Perina, M. Cristani, V. Murino, "2LDA: segmentation for recognition", *Int'l Conf. on Pattern Recognition ICPR 2010*, Istanbul, Turkey, August 2010.

- 
- [B105] M. Bicego, A. Martins, V. Murino, P. Aguiar, M. Figueiredo, "2D shape recognition using information theoretic kernels", *Int'l Conf. on Pattern Recognition ICPR 2010*, Istanbul, Turkey, August 2010.
- [B106] A. Carli, M. Bicego, S. Baldo, V. Murino, "Nonlinear mappings for generative kernels on latent variable models", *Int'l Conf. on Pattern Recognition ICPR 2010*, Istanbul, Turkey, August 2010.
- [B107] A. Ulas, R.P.W. Duin, U. Castellani, M. Loog, M. Bicego, V. Murino, M. Bellani, S. Cerruti, M. Tansella, P. Brambilla, "Dissimilarity-based Detection of Schizophrenia", *ICPR 2010 Workshop on Pattern Recognition Challenges in FMRI Neuroimaging*, August 2010.
- [B108] S. Martelli, D. Tosato, M. Farenzena, M. Cristani, V. Murino, "An FPGA-based Classification Architecture on Riemannian Manifolds", *DEXA Workshop on Interactive Multimodal Pattern Recognition in Embedded SystemS*, Bilbao, Sept. 2010. [Best Paper Award](#)
- [B109] D. Tosato, M. Farenzena, M. Cristani, V. Murino "Part-based human detection on Riemannian manifolds", *IEEE Int'l Conf. on Image Processing ICIP 2010*, Hong Kong, Sept. 2010.
- [B110] L. Bazzani, M. Cristani, V. Murino, "Collaborative particle filters for group tracking", *IEEE Int'l Conf. on Image Processing ICIP 2010*, Hong Kong, Sept. 2010.
- [B111] M. Bicego, A. Perina, V. Murino, A.F.T. Martins, P.M.Q. Aguiar, M.A.T. Figueiredo, "Combining free energy score spaces with information theoretic kernels: Application to scene Classification", *IEEE Int'l Conf. on Image Processing ICIP 2010*, Hong Kong, Sept. 2010, pp. 2661-2664.
- [B112] M. Cristani, A. Pesarin, C. Drioli, A. Rodà, M. Grapulin, V. Murino, N. Sebe. "Toward an Automatically Generated Soundtrack from Low-level Cross-modal Correlations for Automotive Scenarios", *ACM Multimedia conference 2010*, Florence, Oct. 2010. [Full paper](#)
- [B113] N. Jojic, A. Perina, V. Murino, "Structural Epitome: A way to summarize one's visual experience", *Neural Information Processing Systems NIPS 2010*, Vancouver, Canada, Dec. 2010.
- [B114] A.M. Bronstein, M.M. Bronstein, B. Bustos, U. Castellani, M. Cristani, B. Falcidieno, L.J. Guibas, I. Kokkinos, V. Murino, M. Ovsjanikov, G. Patanè, I. Sipiran, M. Spagnuolo, J. Sun, "SHREC'10 Track: Feature Detection and Description", *3rd Eurographics conference on 3D Object Retrieval 3DOR 2010*, pp. 79-86.

## 2011

---

- [B115] M. Cristani, G. Paggetti, A. Vinciarelli, L. Bazzani, G. Menegaz, V. Murino, "Towards Computational Proxemics: Inferring Social Relations from Interpersonal Distances", *SOCIALCOM 2011*, Boston, October 2011.
- [B116] R. Raghavendra, A. Del Bue, M. Cristani, V. Murino, Abnormal Crowd Behavior Detection by Social Force Optimization, *Int'l. Workshop on Human Behavior Understanding HBU 2011*, Amsterdam, Nov. 2011.
- [B117] R. Raghavendra, A. Del Bue, M. Cristani, V. Murino, Optimizing Interaction Force for Global Anomaly Detection in Crowded Scenes, *1st IEEE Workshop on Modeling,*

*Simulation and Visual Analysis of Large Crowds*, Barcellona, Nov. 2011.

- [B118] F. Smeraldi, M. Bicego, M. Cristani, V. Murino, "CLOOSTING: CLustering data with bOOTING", *10th International Workshop on Multiple Classifier Systems MCS 2011*, Naples, Italy, June 2011.
- [B119] Cristani M., Bazzani L., Paggetti G., Fossati A., Tosato D., Del Bue A., Menegaz G. and Murino V., "Social interaction discovery by statistical analysis of F-formations", *22nd British Machine Vision Conference BMVC 2011*, Dundee, UK, Aug. 2011.
- [B120] Cheng D.S., Cristani M., Stoppa M., Bazzani L. and Murino V., "Custom Pictorial Structures for Re-identification", *22nd British Machine Vision Conference BMVC 2011*, Dundee, UK, Aug. 2011.
- [B121] Martelli S., Tosato D., Cristani M. and Murino V., "FPGA-Based Pedestrian Detection Using Array of Covariance Features", *ACM/IEEE International Conference on Distributed Smart Cameras ICDSC 2011*, Gent, Belgium, Aug. 2011.
- [B122] Martelli S., Tosato D., Cristani M. and Murino V., "Fast FPGA-Based Architecture for Pedestrian Detection Based on Covariance Matrices", *18th IEEE International Conference on Image Processing ICIP 2011*, Brussels, Sept. 2011.
- [B123] Castellani U., Ulas A., Murino V., Bellani M., Rambaldelli G., Tansella M. and Brambilla P., "Selecting scales by Multiple Kernel Learning for shape diffusion analysis", *3rd MICCAI Workshop on Mathematical Foundations of Computational Anatomy MFCA 2011*, Toronto, pp. 148-157, Sept. 2011.
- [B124] Torre B., Bicego M., Cristani M., Murino V., Diaspro A., Cingolani R., "Principal Component Analysis in Dynamic Force Spectroscopy: an easy method to extract compositional information in textured sample", *3rd Multifrequency AFM Conference*, 2011. [Short paper](#)
- [B125] M. Bicego, A. Ulas, P. Schuffler, U. Castellani, V. Murino, A. Martins, P. Aguiar, M. Figueiredo: "Renal Cancer Cell Classification Using Generative Embeddings and Information Theoretic Kernels", *Int. Conf. on Pattern Recognition in Bioinformatics PRIB 2011*, Delft, Nov. 2011.
- [B126] A. Ulas, U. Castellani, P. Mirtuono, M. Bicego, V. Murino, S. Cerruti, M. Bellani, M. Atzori, G. Rambaldelli, M. Tansella, P. Brambilla: "Multimodal Schizophrenia Detection by Multiclassification Analysis", *16th Iberoamerican Congress on Pattern Recognition CIARP 2011*, Pucón, Chile, 2011.
- [B127] M. Bicego, A.D. Favia, P. Bisignano, A. Cavalli, V. Murino: "An innovative protocol for comparing protein binding sites via atomic grid maps", *Int. Conf. on Knowledge Discovery and Information Retrieval KDIR 2011*, Paris, Oct. 2011.
- [B128] A. Maccione, S. Ullo, A. Simi, A. Del Bue, E. Petrini, A. Barberis, V. Murino, L. Berdondini, "Dissecting the orchestrated electrical activity in neuronal networks: a multimodal approach combining high density MEAs with fluorescence imaging", *Society for Neuroscience 2011*, Washington DC, Sept. 2011. [Abstract](#)
- [B129] M. Zanotto, V. Murino, "Fast Variational Inference for Dirichlet Process Mixture Models", *2011 NIPS Workshop on Bayesian Nonparametrics: Hope or Hype?*, Sierra Nevada, Spain, Dec. 2011. [Abstract](#)
- [B130] Ulas A., Castellani U., Murino V., Bellani M., Tansella M., Brambilla P., "Heat Diffusion

Based Dissimilarity Analysis for Schizophrenia Classification", *6th IAPR Int. Conf. on Pattern Recognition in Bioinformatics PRIB 2011*, Delft, Nov. 2011.

- [B131] L. Bazzani, N. de Freitas, H. Larochelle, V. Murino, J-A Ting, "Learning attentional policies for object tracking and recognition in video with deep networks", In *International Conference on Machine Learning ICML 2011*, Bellevue, Washington, USA, 2011.

## 2012

---

- [B132] L. Bazzani, M. Cristani, and V. Murino. Decentralized Particle Filter for Joint Individual-Group Tracking. *IEEE Conf. on Computer Vision and Pattern Recognition CVPR 2012*, Providence, RI, USA, June 2012.
- [B133] M. Hà Quang, M. Cristani, A. Perina, V. Murino, "A regularized spectral algorithm for Hidden Markov Models with applications in computer vision", *IEEE Conf. on Computer Vision and Pattern Recognition CVPR 2012*, Providence, RI, USA, June 2012.
- [B134] Crocco M., Del Bue A., Bustreo M. and Murino V., "A Closed Form Solution to the Microphone Position Self-Calibration Problem," *37th International Conference on Acoustics, Speech, and Signal Processing ICASSP 2012*, Kyoto, Japan, March 2012.
- [B135] A. Maccione, S. Ullo, A. Simi, T. Nieus, D. Sona, A. Del Bue, V. Murino, L. Berdondini, "Structural and functional identification of sub-networks in dissociated neuronal cultures: an automated multimodal analysis combining high density MEA and fluorescence imaging", *8th Int'l Meeting on Substrate-Integrated Microelectrode Array*, Reutlingen, Germany, July 2012.
- [B136] M. San Biagio, M. Crocco, M. Cristani, S. Martelli, V. Murino, "Low-level Multimodal Integration on Riemannian Manifolds for Automatic Pedestrian Detection", *15th International Conference on Information Fusion FUSION 2012*, Singapore, pp. 2223-2229, July 2012.
- [B137] S. Ullo, A. Del Bue, A. Maccione, L. Berdondini, V. Murino, "A Joint Structural and Functional Analysis of In-Vitro Neuronal Networks", *IEEE Int'l Conf. on Image Processing ICIP 2012*, Orlando, USA, pp. 1269-1272, 2012.
- [B138] Sabzevari R., Del Bue A., Murino V., "Piecewise single view photometric stereo with multi-view constraints", *19th IEEE Int'l Conf. on Image Processing ICIP 2012*, Orlando, FL, USA, pp. 21-24, 2012.
- [B139] Sabzevari R., Del Bue A., Murino V., "Combining Structure from Motion and Photometric Stereo: A Piecewise Formulation", *Eurographics*, Cagliari, Italy, Sept. 2012.
- [B140] Sabzevari R., Del Bue A., Murino V., "Multi-view Photometric Stereo using Semi-isometric Mappings", *3DimPVT 2012*, Zürich, Switzerland, 2012.
- [B141] E. Sangineto, M. Cristani, A. Del Bue, V. Murino, "Learning Discriminative Spatial Relations for Detector Dictionaries: an Application to Pedestrian Detection", *European Conf. on Computer Vision ECCV 2012*, Florence, Italy, Oct. 2012.
- [B142] A.C. Carli, M.A.T. Figueiredo, M. Bicego, V. Murino, "Generative embeddings based on Rician mixtures: Application to kernel-based discriminative classification of magnetic resonance images," *1st International Conference on Pattern Recognition Applications and Methods ICPRAM 2012*, Vol. 1, pp. 113-122, 2012. [Best Student Paper Award](#)
- [B143] Martelli S., Cristani M., Murino V., "Stereo-Based Framework for Pedestrian Detection

with Partial Occlusion Handling”, *9th IEEE Int'l Conf. on Advanced Video and Signal-based Surveillance AVSS 2012*, Beijing, China, 2012.

- [B144] Giancardo L., Sona D., Gozzi A., Bifone A., Murino V., Migliarini S., Pacini G., Pelosi B. and Pasqualetti M., “Automatic Tractography Analysis through Sparse Networks in Case-Control Studies”, *2nd Int'l Wks. on Pattern Recognition in NeuroImaging PRNI 2012*, London, UK.
- [B145] A. Ulas, U. Castellani, V. Murino, M. Bellani, M. Tansella, P. Brambilla, “Biomarker evaluation by Multiple Kernel Learning for Schizophrenia Detection”, *2nd Int'l Wks. on Pattern Recognition in NeuroImaging PRNI 2012*, London, UK.
- [B146] A. Ulas, M. Gönen, U. Castellani, V. Murino, M. Bellani, M. Tansella, P. Brambilla: “A Localized MKL Method for Brain Classification with Known Intra-class Variability”, *3rd Int'l Wks. Machine Learning in Medical Imaging MLMI 2012*, in conjunction with MICCAI 2012, Nice, France, pp. 152-159, Oct. 2012.
- [B147] San Biagio M., Ulas A., Crocco M., Cristani M., Castellani U., Murino V., “A Multiple Kernel Learning Approach to Multi-Modal Pedestrian Classification”, *21st Int'l Conf. on Pattern Recognition ICPR 2012*, Tsukuba Science City, Japan, pp. 2412-2415, 2012.
- [B148] Piro P., Sona D., Murino V., “Inner Product Tree for improved Orthogonal Matching Pursuit”, *21st Int'l Conf. on Pattern Recognition ICPR 2012*, Tsukuba Science City, Japan, pp. 429-432, 2012.
- [B149] Martelli S., Cristani M., Bazzani L., Tosato D., Murino V., “Joining feature-based and similarity-based pattern description paradigms for object detection”, *21st Int'l Conf. on Pattern Recognition ICPR 2012*, Tsukuba Science City, Japan, pp. 2702-2705, 2012.
- [B150] Giancardo L., Sona D., Scheggia D., Papaleo F., Murino V., “Segmentation and Tracking of Multiple Interacting Mice by Temperature and Shape Information”, *21st Int'l Conf. on Pattern Recognition ICPR 2012*, Tsukuba Science City, Japan, pp. 2520-2523, 2012.
- [B151] Piro P., Pisani P., Bottegoni G., Sona D., Rocchia W., Cavalli A., Murino V., “Fitting and simplification of mixtures for clustering conformational populations of small organic molecules”, *Int'l Conf. on Chemical and Biological Engineering ICCBE 2012*, Stockholm, Sweden, 2012.
- [B152] Crocco M., Del Bue A., Barbosa Barros I., Murino V., “A Closed Form Solution for the Self-Calibration of Heterogeneous Sensors”, *23rd British Machine Vision Conference BMVC 2012*, Guildford, UK, 2012.
- [B153] Zanotto M., Bazzani L., Cristani M., Murino V., “Online Bayesian Nonparametrics for Group Detection”, *23rd British Machine Vision Conference BMVC 2012*, Guildford, UK, 2012.
- [B154] Cristani M., Roffo G., Segalin C., Bazzani L., Vinciarelli A., Murino V., “Conversationally-inspired Stylometric Features for Authorship Attribution in Instant Messaging”, *ACM Multimedia 2012*, Nara, Japan, pp. 1121-1124, 2012.
- [B155] San Biagio M., Crocco M., Cristani M., Murino V., “Recursive Segmentation Based on Higher Order Statistics in Thermal Imaging Pedestrian Detection”, *5th Int'l Symposium on Communications, Control and Signal Processing ISCCSP 2012*, Rome, Italy, 2012.
- [B156] Salvagnini P., Salamin H., Cristani M., Vinciarelli A., and Murino V., “Learning how to

teach from "videolectures": automatic prediction of lecture ratings based on teacher's nonverbal behavior", *3rd IEEE Int'l Conf. on Cognitive Infocommunications CogInfoCom 2012*, Kosice, Slovakia, Dec 2012.

## 2013

---

- [B157] H.Q. Minh, L. Bazzani, V. Murino, "A unifying framework for vector-valued manifold regularization and multi-view learning", *Int'l Conf. on Machine Learning ICML 2013*, pp. 100-108, June 2013.
- [B158] Vascon S., Cristani M., Pelillo M., Murino V., "Using Dominant Sets for k-NN Prototype Selection", *17th International Conference on Image Analysis and Processing*, vol. 8157, pp. 131-140, Napoli, Italy, Sept. 2013.
- [B159] S. Ullo, U. Castellani, D. Sona, A. Del Bue, A. Maccione, L. Berdondini, V. Murino, "Neuronal Network Structural Connectivity Estimation by Probabilistic Features and Graph Heat Kernels", *Int'l Symp. on Biomedical Imaging ISBI 2013*, San Francisco, CA, April 2013.
- [B160] D. Figueira, L. Bazzani, H.Q. Minh, M. Cristani, A. Bernardino, V. Murino. "Semi-supervised multi-feature learning for person re-identification", *Int'l Conf. on Advanced Video and Signal-based Surveillance AVSS 2013*, Krakow, Sept. 2013.
- [B161] Dodero L., Vascon S., Giancardo L., Gozzi A., Sona D., Murino V., "Automatic White Matter Fibers Clustering using Dominant Set", *3rd International Workshop on Pattern Recognition in Neuromaging, PRNI 2013*, pp. 216 – 219, 2013.
- [B162] P. Salvagnini, L. Bazzani, M. Cristani, V. Murino. "Person re-identification with a PTZ camera: an introductory study", *Int'l Conf. on Image Processing ICIP 2013*, Melbourne, Australia, Sept. 2013, pp. 3552-3556.
- [B163] F. Setti, O. Lanz, R. Ferrario, V. Murino, M. Cristani, "Multi-scale f-formation discovery for group detection", *Int'l Conf. on Image Processing ICIP 2013*, Melbourne, Australia, Sept. 2013, pp. 3547-3551.
- [B164] M. San Biagio, M. Crocco, M. Cristani, S. Martelli, V. Murino, "Heterogeneous Auto-Similarities of Characteristics (HASC): Exploiting Relational Information for Classification", *Int'l Conf. on Computer Vision ICCV 2013*, Sydney, Australia, Dec. 2013.
- [B165] San Biagio M., Martelli S., Crocco M., Cristani M., Murino V., "Encoding Classes of Unaligned Objects Using Structural Similarity Cross-Covariance Tensors", *18th Iberoamerican Congress on Pattern Recognition*, vol. 8258, Springer, Havana, Cuba, pp. 133-140, Nov. 2013.
- [B166] G. Roffo, M. Cristani, F. Pollick, C. Segalin, V. Murino, "Statistical Analysis of Visual Attentional Patterns for Video Surveillance", *18th Iberoamerican Congress on Pattern Recognition CIARP 2013*, Havana, Cuba, Springer, pp. 520-527, Nov. 2013.
- [B167] S.J. Poletti, V. Murino, M. Cristani. "SDALF+C: Augmenting the SDALF Descriptor by Relation-Based Information for Multi-shot Re-identification", *18th Iberoamerican Congress on Pattern Recognition CIARP 2013*, Havana, Cuba, Springer, pp. 423-430, Nov. 2013.
- [B168] Del Bue A., Tamassia M., Signorini F., Murino V., Farinelli A., "Visual Coverage Using Autonomous Mobile Robots for Search and Rescue Applications", *11th IEEE International Symposium on Safety, Security, and Rescue Robotics*, Linkoping, Sweden,

Oct. 2013.

- [B169] Nabi M., Del Bue A., Murino V., "Temporal Poselets for Collective Activity Detection and Recognition", *ICCV 2013 Workshops – Understanding Human Activities: Context and Interactions Workshop*, Sydney, Australia, Dec. 2013.
- [B170] Zanotto M., Sona D., Murino V., Papaleo F., "Dirichlet Process Mixtures of Multinomials for Data Mining in Mice Behaviour Analysis", *ICCV 2013 Workshops - Computer Vision for Accelerated Bioscience Workshop*, Sydney, Australia, Dec. 2013.
- [B171] Roffo G., Cristani M., Bazzani L., Ha Quang Minh, Murino V., "Trusting Skype: Learning the Way People Chat for Fast User Recognition and Verification", *ICCV 2013 Workshops – IEEE Workshop in Decoding Subtle Cues from Social Interactions 2013*, Sydney, Australia, Dec. 2013.

## 2014

---

- [B172] P. Salvagnini, F. Pernici, M. Cristani, G. Lisanti, I. Masi, A. Del Bimbo, V. Murino, "Information theoretic sensor management for multi-target tracking with a single pan-tilt-zoom camera", *IEEE Winter Conference on Applications of Computer Vision WACV 2014*, Steamboat Springs, CO, USA, March 2014
- [B173] L. Dodero, V. Murino, D. Sona, "Joint laplacian diagonalization for multi-modal brain community detection", *Int'l Wks. on Pattern Recognition in Neuroimaging PRNI 2014*, pp. 1-4, June 2014.
- [B174] M. Crocco, V. Murino, A. Trucco, A. Del Bue, "Towards fully uncalibrated room reconstruction with sound," *22nd European Signal Processing Conference EUSIPCO 2014*, Lisbon (Portugal), September 2014.
- [B175] A. Perina, M. Zanotto, B. Zhang, V. Murino, "Location Recognition of Lifelog Images through a combination of Generative Models", *25th British Machine Vision Conference BMVC 2014*, Nottingham, UK, Aug. 2014.
- [B176] M. Tamassia, A. Farinelli, V. Murino, A. Del Bue, "A Directional Visual Descriptor for Large-Scale Coverage Problems", *IEEE/RSJ International Conference on Intelligent Robots and Systems IROS 2014*, Chicago, Sept. 2014.
- [B177] L. Dodero, A. Gozzi, A. Liska, V. Murino, D. Sona, "Group-Wise Functional Community Detection through Joint Laplacian Diagonalization", *Medical Image Computing and Computer-Assisted Intervention MICCAI 2014*, Boston, Sept. 2014.
- [B178] A. Perina, D. Peruzzo, M. Kesa, N. Jojic, V. Murino, M. Bellani, P. Brambilla, U. Castellani, "Mapping brains on grids of features: a joint classification and analysis framework applied to schizophrenic patients", *Medical Image Computing and Computer-Assisted Intervention MICCAI 2014*, Boston, Sept. 2014.
- [B179] A. Bhuiyan, A. Perina, V. Murino, "Person re-identification by discriminatively selecting parts and features", *ECCV Workshop on Visual Surveillance and Re-identification*, Zurich, Switzerland, Sept. 2014. [INTEL Best Student Paper Award](#)
- [B180] M. San Biagio, L. Bazzani, M. Cristani, V. Murino, "Weighted Bag of Visual Words for Object Recognition", *IEEE Int'l Conf. on Image Processing ICIP 2014*, Paris, October 2014.
- [B181] Minh Hà Quang, M. San Biagio, V. Murino, "Log-Hilbert-Schmidt metric between positive

definite operators on Hilbert spaces", *Neural Information Processing Systems NIPS 2014*, Montreal, Canada, December 2014. [Spotlight, 3.6% acceptance rate](#)

- [B182] S. Vascon, E. Zemene, M. Cristani, H. Hung, M. Pelillo, V. Murino, "A Game-Theoretic Probabilistic Approach for Detecting Conversational Groups", *12th Asian Conf. on Computer Vision ACCV'14*, Singapore, November 2014. [Oral presentation, <4% acceptance rate](#)

## 2015

---

- [B183] C. Rubino, M. Crocco, V. Murino, A. Del Bue, "Semantic Multi-body Motion Segmentation", *IEEE Winter Conference on Applications of Computer Vision WACV 2015*, Jan. 2015.
- [B184] B. Zhang, Z. Li, A. Perina, A. Del Bue, V. Murino, "Adaptive Local Movement Modelling for Object Tracking", *IEEE Winter Conference on Applications of Computer Vision WACV 2015*, Jan. 2015.
- [B185] H. Mousavi, S. Mohammadi, A. Perina, R. Chellali, V. Murino, "Analyzing Tracklets for the Detection of Abnormal Crowd Behavior", *IEEE Winter Conference on Applications of Computer Vision WACV 2015*, Jan. 2015.
- [B186] A. Bhuiyan, A. Perina, V. Murino, "Exploiting Multiple Detections to Learn Robust Brightness Transfer Functions in Re-Identification Systems", *Int'l Conf. on Image Processing ICIP 2015*, Quebec City, Canada, Sept. 2015. [Top 10% best papers](#)
- [B187] H. Mousavi, M. Nabi, H.K. Galoogahi, A. Perina, V. Murino, "Crowd Motion Monitoring Using Tracklet-based Commotion Measure", *Int'l Conf. on Image Processing ICIP 2015*, Quebec City, Canada, Sept. 2015.
- [B188] D. Stamos, S. Martelli, M. Nabi, A. McDonald, V. Murino, M. Pontil, "Learning With Dataset Bias in Latent Subcategory Models", *28th IEEE Conference on Computer Vision and Pattern Recognition CVPR 2015*, Boston, USA, June 2015, pp. 3650-3658.
- [B189] B. Zhang, A. Perina, V. Murino, A. Del Bue, "Sparse Representation Classification with Manifold Constraints Transfer", *28th IEEE Conference on Computer Vision and Pattern Recognition CVPR 2015*, Boston, USA, June 2015, pp. 4557-4565.
- [B190] S. Mohammadi, H.K. Galoogahi, A. Perina, V. Murino, "A Comparison of Crowd Commotion Measures from Generative Models", *1st Wks on GRow and crOWd behavior analysis and understanding GROW 2015* (in conjunction with CVPR 2015), Boston, June 2015.
- [B191] S. Mohammadi, H.K. Galoogahi, A. Perina, V. Murino, "Violence Detection in Crowded Scenes using Substantial Derivative", *12th IEEE Int'l Conf. on Advanced Video and Signal Based Surveillance AVSS 2015*, Karlsruhe, Germany, August 2015.
- [B192] S. Martelli, M. San Biagio, V. Murino, "Latent subcategory models for pedestrian detection with partial occlusion handling", *12th IEEE Int'l Conf. on Advanced Video and Signal Based Surveillance AVSS 2015*, Karlsruhe, Germany, August 2015.
- [B193] A. Zunino, M. Crocco, S. Martelli, A. Trucco, A. Del Bue, V. Murino, "Seeing the Sound: a New Multimodal Imaging Device for Computer Vision", *Workshop on 3D Reconstruction and Understanding with Video and Sound* (IEEE ICCV 2015 satellite workshop), Santiago de Chile, Dec. 2015.

- [B194] L. Dodero, M. Ha Quang M., M. San Biagio, V. Murino, D. Sona, "Kernel-based classification for brain connectivity graphs on the Riemannian manifold of positive definite matrices", *12nd IEEE Int'l Symposium on Biomedical Imaging ISBI 2015*, New York, USA, April 2015.
- [B195] V.M. Katsageorgiou, G. Lassi, V. Tucci, V. Murino, D. Sona, "Sleep-Stage Scoring in Mice: The Influence of Data Pre-processing on a System's Performance", *37th Annual Int'l Conf. of the IEEE Engineering in Medicine and Biology Society EMBC 2015*, Milan, Italy, August 2015.
- [B196] Zanotto M., Di Marco S., Maccione A., Berdondini L., Sona D. and Murino V., "Modelling Retinal Activity with Restricted Boltzmann Machines: a Study on the Inhibitory Circuitry", *Computational and Systems Neuroscience Cosyne 2015*, Salt Lake City, UT, USA.

## 2016

---

- [B197] L. Dodero, D. Sona, D.E. Meskaldji, V. Murino, D. Van De Ville, "Traces of Human Functional Activity: Moment-To-Moment Fluctuations In fMRI Data", *2016 Int'l Symposium on Biomedical Imaging ISBI'16*, Prague, April 2016, pp. 1307-1310.
- [B198] E. Muñoz, Y. Konishi, V. Murino, A. Del Bue, "Fast 6D Pose Estimation for Texture-less Objects from a single RGB image", *Int'l Conf. on Robotics and Automation ICRA 2016*, Stockholm, Sweden, May 2016.
- [B199] Minh Hà Quang, M. San Biagio, L. Bazzani, V. Murino, "Approximate Log-Hilbert-Schmidt distances between covariance operators for image classification", *29th IEEE Conf. on Computer Vision and Pattern Recognition CVPR 2016*, Las Vegas, USA, June 2016.
- [B200] H. Rabiee, J. Haddadnia, H. Mousavi, M. Kalantarzadeh, M. Nabi, V. Murino, "Novel Dataset for Fine-grained Abnormal Behavior Understanding in Crowd", *13th IEEE Int'l Conf. on Advanced Video and Signal Based Surveillance AVSS 2016*, Colorado Springs, USA, August 2016.
- [B201] Mirmahboub B., Galoogahi H K, Bhuiyan A., Perina A., Zhang B., Del Bue A., Murino V., "Person re-identification using sparse representation with manifold constraints", *Int'l Conf. on Image Processing ICIP 2016*, Phoenix, AZ, USA, 2016.
- [B202] Beyan C., Carissimi N., Capozzi F., Vascon S., Bustreo M., Pierro A., Becchio C., Murino V., "Detecting emergent leader in a meeting environment using nonverbal visual features only", *18th ACM Int'l Conf. on Multimodal Interaction ICMI 2016*, Tokyo, Japan, Nov. 2016.
- [B203] Muñoz E., Konishi Y., Murino V., Del Bue A., "Fast 6D Pose from a Single RBG Image using Cascaded Forest Template", *IEEE Int'l Conf. on Intelligent Robots and Systems IROS 2016*, Daejeon, Korea, Oct. 2016.
- [B204] S. Mohammadi, A. Perina, H. Kiani, V. Murino, "Angry Crowds: Detecting Violent Events in Videos", *European Conf. on Computer Vision ECCV 2016*, Amsterdam, The Netherlands, Oct. 2016.
- [B205] Cavazza J., Zunino A., San Biagio M., Murino V., "Kernelized Covariance for Action Recognition", *23rd Int'l Conf. on Pattern Recognition ICPR 2016*, Cancun, Mexico, Dec. 2016.
- [B206] Katsageorgiou V., Zanotto M., Huang H., Ferretti V., Papaleo F., Sona D., Murino V.,

"Unsupervised Mouse Behavior Analysis: A Data-driven Study of Mice Interactions", *23rd Int'l Conf. on Pattern Recognition ICPR 2016*, Cancun, Mexico, Dec. 2016.

- [B207] Sadafi A., Katsageorgiou V., Huang H., Papaleo F., Murino V. and Sona D., "Multiple Mice Tracking and Segmentation through SIFT Flow Analysis", *Visual Observation and Analysis of Vertebrate and Insect Behavior, ICPR 2016 Satellite Workshop*, Cancun, Mexico, Dec. 2016.
- [B208] Beyan C., Capozzi F., Becchio C., Murino V., "Identification of Emergent Leaders in a Meeting Scenario Using Multiple Kernel Learning", *2nd Workshop on Advancements in Social Signal Processing for Multimodal Interaction*, Tokyo, Japan, Dec. 2016.

## 2017

---

- [B209] A. Roy, B. Banerjee, Vittorio Murino, "A Novel Dictionary Learning based Multiple Instance Learning Approach to Action Recognition from Videos", *ICPRAM 2017*, pp. 519-526, Febr. 2017.
- [B210] S. Baglietto, I.E. Kepiro, G. Hilgen, E. Sernagor, V. Murino, D. Sona, "Segmentation of Retinal Ganglion Cells From Fluorescent Microscopy Imaging", *4th Int'l Conference on Bioimaging BIOIMAGING 2017*, Porto, Portugal, pp. 17-23, Febr. 2017.
- [B211] B. Banerjee, V. Murino, "Efficient Pooling of Image Based CNN Features for Action Recognition in Videos", *Int'l Conf. on Audio, Speech and Signal Processing ICASSP 2017*, New Orleans, USA, March 2017.
- [B212] B. Mirmahboub, M.L. Mekhalfi, V. Murino, "Distance Penalization and Fusion for Person Re-identification", *Winter Conf. on Applications of Computer Vision WACV 2017*, Santa Rosa, CA, USA, March 2017.
- [B213] C. Hilario Gómez, L. Dodero, A. Gozzi, V. Murino, D. Sona, "Atlas-Free Connectivity Analysis Driven by White Matter Structure", *Int'l Symposium on Biomedical Imaging ISBI 2017*, Melbourne, Australia, April 2017.
- [B214] A. Crimi, L. Dodero, V. Murino, D. Sona, "Case-Control Discrimination through Effective Brain Connectivity", *Int'l Symposium on Biomedical Imaging ISBI 2017*, Melbourne, Australia, April 2017.
- [B215] V.M. Katsageorgiou, M. Zanotto, V. Tucci, V. Murino, D. Sona, "Data-driven Study of Mouse Sleep-stages using Restricted Boltzmann Machines", *Int'l Joint Conf. on Neural Networks IJCNN 2017*, Anchorage, May 2017.
- [B216] A. Crimi, L. Dodero, F. Sambataro, V. Murino, D. Sona, "Effective Brain Connectivity based on Structural Prior", *Annual Meeting of the Human Brain Mapping HBO 2017*, Vancouver, Canada, June 2017. [Abstract](#)
- [B217] M. Dayan, M. Rocca, P. Valsasina, E. Pagani, V. Murino, M. Filippi, D. Sona, "Sparse representation of the connectome for group discrimination: application to multiple sclerosis", *Annual Meeting of the Human Brain Mapping HBO 2017*, Vancouver, Canada, June 2017. [Abstract](#)
- [B218] R. Panda, A. Bhuiyan, V. Murino, A.K. Roy-Chowdhury, "Unsupervised Adaptive Re-Identification in Open World Dynamic Camera Networks", *30th IEEE Conf. on Computer Vision and Pattern Recognition CVPR 2017*, Honolulu, USA, July 2017. [Spotlight, 8% acceptance rate](#)
- [B219] Zunino A., Cavazza J., Koul A., Cavallo A., Becchio C., Murino V., "What Will I Do Next? The Intention from Motion Experiment", *IEEE Conference on Computer Vision and Pattern Recognition Workshops*, July 2017.
- [B220] Cavazza J., Morerio P., Murino V., "When Kernel Methods meet Feature Learning: Log-Covariance Network for Action Recognition from Skeletal Data", *IEEE Conference on Computer Vision and Pattern Recognition Workshops*, July 2017.

- 
- [B221] Xiangping Zhu, A. Bhuiyan, M.L. Mekhalfi, V. Murino, "Exploiting Gaussian Mixture Importance for Person Re-identification", *14<sup>th</sup> Int'l Conf. on Advanced Video and Signal based Surveillance AVSS 2017*, Lecce, Sept. 2017.
- [B222] Baglietto S., Dayan M., Murino V., Sona D., "3D dendrite tracing inspired by diffusion MRI tractography", *Bioimage Informatics Conference*, 2017. [Abstract](#)
- [B223] P. Morerio, J. Cavazza, R. Volpi, R. Vidal, V. Murino, "Curriculum Dropout", *Int'l Conf. on Computer Vision ICCV 2017*, Venice, Oct. 2017.
- [B224] A. Perina, S. Mohammadi, N. Jojic, V. Murino, "Summarization and Classification of Wearable Camera Streams by Learning the Distributions Over Deep Features of Out-Of-Sample Image Sequences", *Int'l Conf. on Computer Vision ICCV 2017*, Venice, Oct. 2017.
- [B225] C. Chen C., B. Zhang, A. Del Bue, V. Murino, "Manifold Constrained Low-Rank Decomposition", *2017 ICCV Workshop on Robust Subspace Learning and Applications in Computer Vision*, Venice, Oct. 2017.
- [B226] C. Beyan, V-M. Katsageorgiou, V. Murino, "Moving as a Leader: Detecting Emergent Leadership in Small Groups using Body Pose", *25th ACM Multimedia 2017 Conference*, Mountain View, CA, Oct. 2017.
- [B227] A. Zunino, J. Cavazza, A. Koul, A. Cavallo, C. Becchio, V. Murino, "Predicting Human Intentions from Motion Cues Only: A 2D+3D Fusion Approach", *25th ACM Multimedia 2017 Conference*, Mountain View, CA, Oct. 2017.
- [B228] C. Beyan, F. Capozzi, C. Becchio, V. Murino, "Multi-task Learning of Social Psychology Assessments and Nonverbal Features for Automatic Leadership Identification", *19<sup>th</sup> Int'l Conf. Multimodal Interaction ICMI 2017*, Glasgow, Nov. 2017.

## 2018

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- [B229] J. Cavazza, P. Morerio, B. Haeffele, C. Lane, V. Murino, R. Vidal, "Dropout as a Low-Rank Regularizer for Matrix Factorization", *21st International Conference on Artificial Intelligence and Statistics AISTATS 2018*, Lanzarote, Canary Islands, Spain, April 2018.
- [B230] P. Morerio, J. Cavazza, V. Murino, "Minimal-Entropy Correlation Alignment for Unsupervised Deep Domain Adaptation", *Int'l. Conf. on Representation Learning ICLR 2018*, Vancouver, 2018. [Top 11% of the accepted papers based on the review scores](#)
- [B231] S.A. Bargal, A. Zunino, D. Kim, J. Zhang, V. Murino, S. Sclaroff, "Excitation Backprop for RNNs", *31st IEEE Conf. on Computer Vision and Pattern Recognition CVPR 2018*, Salt Lake City, USA, June 2018.
- [B232] A. Zunino, P. Morerio, A. Cavallo, C. Ansuini, J. Podda, F. Battaglia, E. Veneselli, C. Becchio, V. Murino, "Video Gesture Analysis for Autism Spectrum Disorder Detection", *24th Int'l Conf. on Pattern Recognition ICPR 2018*, Beijing, China, August 2018.
- [B233] A. Roy, B. Banerjee, V. Murino, "Discriminative Latent Visual Space For Zero-Shot Object Classification", *24th Int'l Conf. on Pattern Recognition ICPR 2018*, Beijing, China, August 2018.

- 
- [B234] A. Sadafi, V-M. Katsageorgiou, H. Huang, F. Papaleo, V. Murino, D. Sona, "Multiple Mice Tracking: Occlusions Disentanglement using a Gaussian Mixture Model", *24th Int'l Conf. on Pattern Recognition ICPR 2018*, Bejing, China, August 2018.
- [B235] M. Dayan, V-M. Katsageorgiou, L. Dodero, V. Murino, D. Sona, "Unsupervised Detection of White Matter Fiber Bundles with Stochastic Neural Networks", *Int'l Conf. on Image Processing ICIP 2018*, Athens, Greece, Oct. 2018.
- [B236] A. Roy, J. Cavazza, V. Murino, "Visually Augmented Semantic Attributes for Zero-Shot Learning", *British Machine Vision Conference BMVC 2018*, Newcastle Upon Tyne, UK, Sept. 2018.
- [B237] C. Beyan, M. Shahid, V. Murino, "Investigation of Small Group Social Interactions Using Deep Visual Activity-Based Nonverbal Features", *ACM Multimedia 2018*, Seoul, South Korea, Oct. 2018.
- [B238] N. Carissimi, C. Beyan, V. Murino, "A multi-view learning approach to deception detection", *13th IEEE Int'l Conf. on Automatic Face and Gesture Recognition FG 2018*, Xi'an, China, May 2018.
- [B239] R. Volpi, P. Morerio, S. Savarese, V. Murino, "Adversarial feature augmentation for unsupervised domain adaptation", *31st IEEE Conf. on Computer Vision and Pattern Recognition CVPR 2018*, Salt Lake City, USA, June 2018.
- [B240] N. Carissimi, P. Rota, C. Beyan, V. Murino, "Filling the Gaps: Predicting Missing Joints of Human Poses Using Denoising Autoencoders", *9th Int'l Workshop on Human Behavior Understanding - Generating Visual Data of Human Behavior*, Munich, Germany, Sept. 2018.
- [B241] R. Volpi, H. Namkoong, O. Sener, J. Duchi, V. Murino, S. Savarese, "Generalizing to Unseen Domains via Adversarial Data Augmentation", *Neural Information Processing Systems NIPS 2018*, Montreal, Canada, December 2018.

## 2019

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- [B242] M.A. Yamin, M. Dayan, L. Squarcina, P. Brambilla, V. Murino, V. Diwadkar, D. Sona, "Comparison of Brain Connectomes Using Geodesic Distance on Manifold: A Twins Study", *IEEE Int'l Symposium on Biomedical Imaging ISBI 2019*, Venice, Italy, April 2019.
- [B243] M.A. Yamin, M. Dayan, L. Squarcina, P. Brambilla, V. Murino, V. Diwadkar, D. Sona, "Investigating the Impact of Genetic Background on Brain Dynamic Functional Connectivity Through Machine Learning: A Twins Study", *IEEE-EMBS Int'l Conf. on Biomedical and Health Informatics BHI'19*, Chicago, USA, May 2019. [Oral, 11% acceptance rate](#)
- [B244] S.A. Bargal, A. Zunino, V. Petsiuk, J. Zhang, K. Saenko, V. Murino, S. Sclaroff, "Are CNN Predictions based on Reasonable Evidence?" *IEEE CVPR Workshop on Explainable AI 2019*, Long Beach, CA, June 2019.
- [B245] S.A. Bargal, A. Zunino, V. Petsiuk, J. Zhang, K. Saenko, V. Murino, S. Sclaroff, "Guided Zoom: Questioning Network Evidence for Fine-Grained Classification", *British Machine Vision Conference BMVC 2019*, Cardiff, UK, Sept. 2019. [Oral, < 5% acceptance rate](#)

- 
- [B246] X. Zhu, P. Morerio, V. Murino, "Unsupervised Domain-Adaptive Person Re-identification Based on Attributes", *26th IEEE Int'l Conf. on Image Processing ICIP 2019*, Taiwan, Sept. 2019.
- [B247] R. Volpi, V. Murino, "Model Vulnerability to Distributional Shifts over Image Transformation Sets", *Int'l Conf. on Computer Vision ICCV 2019*, Seoul, Korea, Oct. 2019.
- [B248] M.A. Yamin, M. Dayan, L. Squarcina, P. Brambilla, V. Murino, V. Diwadkar, D. Sona, "Analysis of Dynamic Brain Connectivity through Geodesic Clustering", *20th Int'l Conf. on Image Analysis and Processing ICIAP 2019*, Trento, Italy, Sept. 2019.
- [B249] M.U. Akbar, S. Aslani, V. Murino, D. Sona, "Multiple Organs Segmentation in Abdomen CT Scans Using a Cascade of CNNs", *20th Int'l Conf. on Image Analysis and Processing ICIAP 2019*, Trento, Italy, Sept. 2019.
- [B250] M. Shahid, C. Beyan, V. Murino, "Comparisons of Visual Activity Primitives for Voice Activity Detection", *20th Int'l Conf. on Image Analysis and Processing ICIAP 2019*, Trento, Italy, Sept. 2019.
- [B251] M. Shahid, C. Beyan, V. Murino, "Voice activity detection by upper body motion analysis and unsupervised domain adaptation," *IEEE Int'l Conference on Computer Vision (ICCV) Workshops, 10th Int'l Wks on Human Behavior Understanding, HBU 2019*, Oct. 2019.
- [B252] M. Bustreo, J. Cavazza, V. Murino, "Enhancing Visual Embeddings through Weakly Supervised Captioning for Zero-Shot Learning", *ICCV 2019 Workshop on Multi-Discipline Approach for Learning Concepts - Zero-Shot, One-Shot, Few-Shot and Beyond*, Oct. 2019.
- [B253] Xiangping Zhu, Xiatian Zhu, M. Li, V. Murino, S. Gong, "Intra-Camera Supervised Person Re-Identification: A New Benchmark", *ICCV 2019 Workshop and Challenge on Real-World Recognition from Low-Quality Images and Videos RLQ 2019*, Oct. 2019.

## 2020

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- [B254] A. Perez, V. Sanguineti, P. Morerio, V. Murino, "Audio-Visual Model Distillation Using Acoustic Images", *IEEE Winter Conference on Applications of Computer Vision WACV 2020*, Aspen, CO, USA, March 2020.
- [B255] R. Volpi, P. Morerio, R. Ragonesi, V. Murino, "Generative Pseudo-label Refinement for Unsupervised Domain Adaptation", *IEEE Winter Conference on Applications of Computer Vision WACV 2020*, Aspen, CO, USA, March 2020.
- [B256] S. Aslani, V. Murino, M. Dayan, R. Tam, D. Sona, G. Hamarneh, "Scanner Invariant Multiple Sclerosis Lesion Segmentation from MRI", *IEEE Int'l Symposium on Biomedical Imaging ISBI 2020*, Iowa City, USA, April 2020.
- [B257] M.A. Yamin, J. Tessadori, M.U. Akbar, M. Dayan, V. Murino, D. Sona, "Geodesic Clustering of Positive Definite Matrices For Classification of Mental Disorder Using Brain Functional Connectivity", *Int'l Joint Conf. on Neural Networks IJCNN 2020*, Glasgow, Scotland, UK, July 2020.
- [B258] V. Sanguineti, P. Morerio, N. Pozzetti, D. Greco, M. Cristani, V. Murino, "Leveraging Acoustic Images for Effective Self-Supervised Audio Representation Learning", *IEEE European Conference on Computer Vision ECCV 2020*, Glasgow, Scotland, August

2020.

- [B259] M.G. Padalkar, C. Beltran-Gonzalez, M. Bustreo, A. Del Bue, V. Murino, "A Versatile Crack Inspection Portable System based on Classifier Ensemble and Controlled Illumination", *25th Int'l Conf. on Pattern Recognition ICPR 2020*, Milan, Italy, 2020.
- [B260] W. Ahmed, A. Zunino, P. Morerio, V. Murino, "Compact CNN Structure Learning by Knowledge Distillation", *25th Int'l Conf. on Pattern Recognition ICPR 2020*, Milan, Italy, 2020.
- [B261] M. Aghaei, M. Bustreo, P. Morerio, N. Carissimi, A. Del Bue, V. Murino, "Complex-Object Visual Inspection: Empirical Studies on A Multiple Lighting Solution", *25th Int'l Conf. on Pattern Recognition ICPR 2020*, Milan, Italy, 2020.
- [B262] M.A. Yamin, P. Valvasina, M. Dayan, S. Vascon, J. Tessadori, M. Filippi, V. Murino, M.A. Rocca, D. Sona, "Encoding Brain Networks Through Geodesic Clustering of Functional Connectivity for Multiple Sclerosis Classification", *25th Int'l Conf. on Pattern Recognition ICPR 2020*, Milan, Italy, 2020.
- [B263] A. Hati, M. Bustreo, D. Sona, V. Murino, A. Del Bue, "Weakly Supervised Geodesic Segmentation of Egyptian Mummy CT Scans", *25th Int'l Conf. on Pattern Recognition ICPR 2020*, Milan, Italy, 2020.

## 2021

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- [B264] M. Shahid, C. Beyan, V. Murino, "S-VVAD: Visual Voice Activity Detection by Motion Segmentation", *IEEE Winter Conference on Applications of Computer Vision WACV 2021*, Waikoloa, Hawaii, USA, (*Virtual*), Jan. 2021.
- [B265] F. Marmoreo, J. Cavazza, V. Murino, "Transductive Zero-Shot Learning by Decoupled Feature Generation", *IEEE Winter Conference on Applications of Computer Vision WACV 2021*, Waikoloa, Hawaii, USA, (*Virtual*), Jan. 2021.
- [B266] N.C. Garcia, S.A. Bargal, V. Ablavsky, P. Morerio, V. Murino, S. Sclaroff, "Distillation Multiple Choice Learning for Multimodal Action Recognition", *IEEE Winter Conference on Applications of Computer Vision WACV 2021*, Waikoloa, Hawaii, USA, (*Virtual*), Jan. 2021.
- [B267] V. Sanguineti, P. Morerio, A. Del Bue, V. Murino, "Audio-Visual Localization by Synthetic Acoustic Image Generation", *35th AAAI Conference on Artificial Intelligence AAAI 2021*, Virtual, Febr. 2021. [21% acceptance rate](#)
- [B268] V. Sanguineti, P. Morerio, A. Del Bue, V. Murino, "Synthetic Acoustic Image Generation for Audio-Visual Localization", *Sight & Sound 2021, A Satellite CVPR 2021 Workshop*, 2021.
- [B269] N. Domenici, V. Sanguineti, P. Moriero, C. Campus, A. Del Bue, M. Gori, V. Murino, "Computational Modeling of Human Multisensory Source Localization by a Neural Architecture", *43rd European Conference on Visual Perception, ECVP 2021*, 2021.

## 2022

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- [B270] W. Ahmed, P. Morerio, V. Murino, "Cleaning Noisy Labels by Negative Ensemble Learning for Source-Free Unsupervised Domain Adaptation", *IEEE Winter Conference on Applications of Computer Vision WACV 2022*, Waikoloa, Hawaii, USA, Jan. 2022.

- [B271] V.G. Torrisi Da Costa G. Zara, P. Rota, T. Oliveira-Santos, N. Sebe, V. Murino, E. Ricci, "Dual-Head Contrastive Domain Adaptation for Video Action Recognition", *IEEE Winter Conference on Applications of Computer Vision WACV 2022*, Waikoloa, Hawaii, USA, Jan. 2022.
- [B272] R. Blythman, A. Zunino, C.J. Murray, V. Murino, "On the Importance of Appearance and Interaction Feature Representations for Person Re-identification", *Real-World Surveillance: Applications and Challenges Workshop (RWS @ WACV2022)*, Waikoloa, HI, USA, Jan. 2022. [Best Paper Award](#)

January 2022

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