

CURRICULUM VITAE ET STUDIORUM

Personal information

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Nationality: Italian
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Education

Period: 2017-
Position: Post-doctoral researcher
Activity: Deep learning for emulating human interaction modalities in computer vision methods
Institution: University of Catania (Italy)

Period: 2013-2016
Position: Ph.D. student
Thesis: “Hybrid Human-Machine Vision Systems for Automated Object Segmentation and Categorization”
Activity: Integration of several kinds of human feedback (mouse clicks, eye-tracking electroencephalography) into computer vision methods for video object segmentation and image classification
Institution: University of Catania (Italy)

Period: 2007-2010
Degree: Master's Degree
Thesis: “FPGAs for CNN-based hot spot detection in Tokamak machines”

Institution: University of Catania (Italy)
Period: 2004-2007
Degree: Bachelor's Degree
Thesis: "Adaptive and dynamic generation of user interfaces with session management"
University: University of Catania (Italy)

Publications:

Journals

1. C. Spampinato, S. Palazzo, D. Giordano, *Gamifying Video Object Segmentation*, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, vol. PP, n. 99, 2016 (online).
2. C. Spampinato, S. Palazzo, D. Giordano, *Deep Learning for Automated Skeletal Bone Age Assessment in X-Ray Images*, *Medical Image Analysis*, vol. 37, pp. 41-51, February, 2017 (online).
3. D. Giordano, S. Palazzo, C. Spampinato, *A diversity-based search approach to support annotation of a large fish image dataset*, *Multimedia Systems*, vol. 22, n. 6, pp. 725-736, November, 2016.
4. C. Spampinato, S. Palazzo, P. H. Joalland, S. Paris, H. Glotin, K. Blanc, D. Lingrand, F. Precioso, *Fine-grained object recognition in underwater visual data*, *Multimedia Tools and Applications*, vol. 75, n. 3, pp. 1701-1720, February, 2016.
5. D. Giordano, I. Kavasidis, S. Palazzo, C. Spampinato, *Nonparametric label propagation using mutual local similarity in nearest neighbors*, *Computer Vision and Image Understanding*, vol. 131, pp. 116-127, February, 2015.

6. B. J. Boom, J. He, S. Palazzo, P. X. Huang, C. Beyan, H. Chou, F.-P. Lin, C. Spampinato, R. B. Fisher, *A research tool for long-term and continuous analysis of fish assemblage in coral-reefs using underwater camera footage*, Special Issue on Multimedia in Ecology and Environment, Ecological Informatics, vol. 23, pp. 83–97, September, 2014.
7. C. Spampinato, S. Palazzo, I. Kavasidis, *A textron-based kernel density estimation approach for background modeling under extreme conditions*, Computer Vision and Image Understanding, vol. 122, pp. 74-83, May, 2014.
8. I. Kavasidis, S. Palazzo, R. Di Salvo, D. Giordano, C. Spampinato, *An innovative web-based collaborative platform for video annotation*, Multimedia Tools and Applications, vol. 70, n. 1, pp. 413-432, May, 2014.
9. C. Spampinato, S. Palazzo, B. Boom, J. van Ossenbruggen, I. Kavasidis, R. Di Salvo, F.-P. Lin, D. Giordano, L. Hardman, R. B. Fisher, *Understanding fish behavior during typhoon events in real-life underwater environments*, Multimedia Tools and Applications, vol. 70, n. 1, pp. 199-236, May, 2014.
10. C. Spampinato, E. Beauxis-Aussalet, S. Palazzo, C. Beyan, J. van Ossenbruggen, J. He, B. Boom, X. Huang, *A rule-based event detection system for real-life underwater domain*, Machine Vision and Applications, vol. 25, n. 1, pp 99-117, May, 2014.
11. S. Palazzo, A. Murari, P. Arena, D. Mazon, *Space-Varying Templates for Real-Time Applications of Cellular Nonlinear Networks to Pattern Recognition in Nuclear Fusion*, IEEE Transactions on Plasma Science, vol. 41, n. 9, pp. 2516-2526, August, 2013.
12. A. Murari, J. Vega, D. Mazon, P. Arena, T. Craciunescu, L. Gabellieri, M. Gelfusa, D. Pacella, S. Palazzo, A. Romano, JET-EFDA Contributors, *Latest developments in image processing for the next generation of devices with a view on DEMO*, Fusion Engineering and Design, vol. 87, n. 12, pp. 2116-2119, December 2012.
13. A. Costanzo, A. Faro, S. Palazzo, *Parallel Clustering of Videos to Provide Real Time Location*

Intelligence Services to Mobile Users, Advances in Future Computer and Control Systems, pp. 519-527, 2012.

14. S. Palazzo, A. Murari, G. Vagliasindi, P. Arena, D. Mazon, A. De Maack, and JET-EFDA Contributors, *Image processing with cellular nonlinear networks implemented on field-programmable gate arrays for real-time applications in nuclear fusion*, Review of Scientific Instruments, vol. 81, n. 8, August, 2010.
15. A. Murari, J. Vega, D. Mazon, G.A. Rattà, J. Svensson, S. Palazzo, G. Vagliasindi, P. Arena, C. Boulbe, B. Faugeras, L. Fortuna, D. Moreau and JET-EFDA Contributors, *Innovative signal processing and data analysis methods on JET for control in the perspective of next-step devices*, Nuclear Fusion, vol. 50, n. 5, May, 2010.

Book chapters

1. D. Giordano, S. Palazzo, C. Spampinato, *Fish Tracking*. In *Fish4Knowledge: Collecting and Analyzing Massive Coral Reef Fish Video Data*, R. B. Fisher, Y.-H. Chen-Burger, D. Giordano, L. Hardman, F.-P. Lin (ed.), pp. 123-129, Springer International Publishing, 2016.
2. D. Giordano, S. Palazzo, C. Spampinato, *Fish Detection*. In *Fish4Knowledge: Collecting and Analyzing Massive Coral Reef Fish Video Data*, R. B. Fisher, Y.-H. Chen-Burger, D. Giordano, L. Hardman, F.-P. Lin (ed.), pp. 103-122, Springer International Publishing, 2016.

Conference proceedings

1. C. Spampinato, S. Palazzo, I. Kavasidis, D. Giordano, *Deep Learning Human Mind for Automated Visual Classification*, accepted for publication at the IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Honolulu, USA, July 21-26, 2017.
2. C. Spampinato, S. Palazzo, F. Murabito, D. Giordano, *Using the eyes to see the objects*, ACM

- International Conference on Multimedia (ACMMM), Brisbane, Australia, October, 26-30, 2015.
3. A. Joly, H. Goeau, H. Glotin, C. Spampinato, P. Bonnet, W.-P. Vellinga, R. Planqué, A. Rauber, S. Palazzo, B. Fisher, H. Muller, *LifeClef 2015: Multimedia Life Species Identification Challenges*, International Conference of the CLEF Association, Toulouse, France, September 8-11, 2015.
 4. D. Giordano, I. Kavasidis, S. Palazzo, C. Spampinato, *Rejecting False Positives in Video Object Segmentation*, International Conference on Computer Analysis of Images and Patterns (CAIP), Valletta, Malta, September 2-4, 2015.
 5. D. Giordano, F. Murabito, S. Palazzo, C. Spampinato, *Superpixel-based video object segmentation using perceptual organization and location prior*, IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Boston, USA, June 8-10, 2015.
 6. S. Palazzo, F. Murabito, *Fish Species Identification in Real-Life Underwater Images*, ACM International Workshop on Multimedia Analysis for Ecological Data (MAED), Orlando, USA, November 7, 2014.
 7. C. Spampinato, S. Palazzo, *PeRCeiVe Lab@UNICT at MediaEval 2014 Diverse Images: Random Forests for Diversity-based Clustering*, MediaEval Workshop, Barcelona, Spain, October 16-17, 2014.
 8. D. Giordano, S. Palazzo, C. Spampinato, *Kernel density estimation using joint spatial-color-depth data for background modeling*, International Conference on Pattern Recognition (ICPR), Stockholm, Sweden, August 24-28, 2014.
 9. S. Palazzo, C. Spampinato, D. Giordano, *Large Scale Data Processing in Ecology: A Case Study on Long-Term Underwater Video Monitoring*, Euromicro International Conference on Parallel, Distributed and Network-Based Processing (PDP), Turin, Italy, February 12-14, 2014.

10. E. Beauxis-Aussalet, S. Palazzo, G. Nadarajan, E. Arslanova, C. Spampinato, L. Hardman, *A video processing and data retrieval framework for fish population monitoring*, ACM International Workshop on Multimedia Analysis for Ecological Data (MAED), Barcelona, Spain, October 22, 2013.
11. S. Palazzo, I. Kavasidis, C. Spampinato, *Covariance based modeling of underwater scenes for fish detection*, IEEE International Conference on Image Processing (ICIP), Melbourne, Australia, September 15-18, 2013.
12. C. Spampinato, S. Palazzo, *Enhancing Object Detection Performance by Integrating Motion Objectness and Perceptual Organization*, International Conference on Pattern Recognition (ICPR), Tsukuba Science City, Japan, November 11-15, 2012.
13. B. J. Boom, P. X. Huang, C. Beyan, C. Spampinato, S. Palazzo, J. He, E. Beauxis-Aussalet, S. Lin, H. Chou, G. Nadarajan, Y. Chen-Burger, J. van Ossenbruggen, D. Giordano, L. Hardman, F. Lin, R. B. Fisher, *Long-term underwater camera surveillance for monitoring and analysis of fish populations*, International Workshop on Visual observation and Analysis of Animal and Insect Behavior (VAIB), Tsukuba Science City, Japan, November 11, 2012.
14. S. Palazzo, C. Spampinato, C. Beyan, *Event Detection in Underwater Domain by Exploiting Fish Trajectory Clustering*, ACM International Workshop on Multimedia Analysis for Ecological Data (MAED), Nara, Japan, November 2, 2012.
15. I. Kavasidis, S. Palazzo, *Quantitative performance analysis of object detection algorithms on underwater video footage*, ACM International Workshop on Multimedia Analysis for Ecological Data (MAED), Nara, Japan, November 2, 2012.
16. A. Faro, D. Giordano, S. Palazzo, *Integrating unsupervised and supervised clustering methods on a GPU platform for fast image segmentation*, IEEE International Conference on Image Processing Theory, Tools and Applications (IPTA), Istanbul, Turkey, October 15-18, 2012.
17. M. Aldinucci, C. Spampinato, M. Drocco, M. Torquati, S. Palazzo, *A Parallel Edge Preserving*

- Algorithm for Salt and Pepper Image Denoising*, IEEE International Conference on Image Processing Theory, Tools and Applications (IPTA), Istanbul, Turkey, October 15-18, 2012.
18. C. Spampinato, S. Palazzo, D. Giordano, *Evaluation of Tracking Algorithm Performance without Ground-Truth Data*, IEEE International Conference on Image Processing (ICIP), Orlando, USA, September 30 – October 3, 2012.
 19. S. Palazzo, C. Spampinato, D. Giordano, *Hidden Markov Models For Detecting Anomalous Fish Trajectories In Underwater Footage*, IEEE International Workshop on Machine Learning for Signal Processing (MLSP), Santander, Spain, September 23-26, 2012.
 20. I. Kavasidis, S. Palazzo, R. Di Salvo, D. Giordano, C. Spampinato, *A Semi-automatic Tool for Detection and Tracking Ground Truth Generation in Videos*, International Workshop on Visual Interfaces for Ground Truth Collection in Computer Vision Applications (VIGTA), Capri, Italy, May 21, 2012.
 21. C. Spampinato, S. Palazzo, D. Giordano, I. Kavasidis, F.P. Lin, Y.T. Lin, *Covariance-based fish tracking in real-life underwater environment*, International Conference on Computer Vision Theory and Applications (VISAPP 2012), Rome, Italy, February 24-26, 2012.
 22. C. Spampinato, S. Palazzo, A. Faro, *Event Detection in Crowds of People by Integrating Chaos and Lagrangian Particle Dynamics*, International Conference on Information and Multimedia Technology (ICIMT), Dubai, UAE, December 28-30, 2011.