

## ELISA RICCI - CURRICULUM VITAE

### Personal details

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### Employment history

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<b>December 2017 - present</b>	Associate Professor Department of Information Engineering and Computer Science (DISI), University of Trento, Trento (IT)
<b>December 2019 - present</b>	Head of the Deep Visual Learning (DVL) group Fondazione Bruno Kessler, Trento (IT)
<b>December 2017 - present</b>	Scientific Manager of the Joint Lab between FBK and DISI "Vision and Learning joint Laboratory"
<b>November 2013 - April 2016</b>	Researcher Fondazione Bruno Kessler, Trento (IT)
<b>January 2011 - December 2017</b>	Assistant Professor <sup>1</sup> Department of Engineering, University of Perugia, Perugia (IT)
<b>June 2012- July 2012</b>	Visiting Researcher University of Bristol, Bristol (UK)
<b>March 2009 - December 2010</b>	Researcher Fondazione Bruno Kessler, Trento (IT)
<b>March 2008 - February 2009</b>	Postdoctoral researcher Idiap Research Institute, Martigny (CH) Advisor: Dr. Jean Marc Odobez.
<b>May 2006 - April 2007</b>	Research Intern Department of Engineering Mathematics, University of Bristol , Bristol (UK) Advisor: Prof. Nello Cristianini
<b>November 2004 - February 2008</b>	PhD Student Department of Engineering, University of Perugia, Perugia (IT) Advisor: Prof. Renzo Perfetti
<b>May 2004 - December 2004</b>	Presales engineer and applications consultant Blue System s.r.l., Perugia (IT)
<b>October 2003 - March 2004</b>	Master thesis internship Swiss Federal Institute of Technology (ETH), Zurich (CH), Advisor: Dr. Mauro Ciappa

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<sup>1</sup>On leave from UNIPG (aspettativa articolo 7 legge 240/2010) dal 01/11/2013 al 30/04/2016.

## Education

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November 2004 – February 2008	PhD in Electronic and Information Engineering. University of Perugia (IT).
November 2004	Italian engineering licence (Professional practice examination), University of Perugia (IT).
October 1998 – March 2004	Master in Electrical Engineering at University of Perugia (IT). Final scores: 110/110 cum Laude.
October 1993 – July 1998	High School Diploma at Liceo classico, Todi, Perugia (IT). Final scores: 60/60.

## Languages

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**Italian:** mother tongue.

**English:** fluent.

**French:** basic.

## Research projects & grants

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My research is funded by national and international grants as well as by contracts and donations from leading companies in Artificial Intelligence. In the last two years, since I joined UNITN/FBK, I acquired over 1,5M € funding in projects where I have the role of PI or research unit coordinator. Besides this, I am participating/participated to other projects in quality of researcher. In the last two years I have also acquired funding for covering several PhD scholarships. Details of these activities are provided below.

### Principal Investigator or Research Unit coordinator of the following projects:

- (2020-2023) **H2020 EU Project SPRING** (Socially Pertinent Robots in Gerontological Healthcare), Funding UNITN: 904,000 €
- (2020-2022) **ISFP EU Project PROTECTOR** (Protecting Places of Worship), Funding FBK: 500,000 € (funding DVL: 120,000)
- (2020-2022) **H2020 EU Project MARVEL** (Multimodal Extreme Scale Data Analytics for Smart Cities Environments), Funding FBK: 370,000 € (funding DVL: 180,000)
- (2020-2021) **Project Interactive Video Manipulation**, research gift by Snap Inc., Funding UNITN: 24,697.5 €
- (2021 – 2021) **Project ARTEMIS** funded by Fondazione VRT, Funding UNITN: 24,900 €
- (2020-2021) **Project BONSAI** (Analyzing Human Behaviors with Online and Structured Adaptation) funded by Huawei Technologies, Funding UNITN: 243,822 €
- (2020) **Project RECITAL2** (Resource Constrained Incremental Task Learning) funded by SAP SE, Funding FBK: 30,000 €
- (2019) **Project RECITAL** (Resource Constrained Incremental Task Learning) funded by SAP SE, Funding UNITN: 40,000 €
- (2018 – 2020) **Project SMARTourism** funded by Fondazione Caritro, Funding UNITN: 47,000 €
- (2018 – 2019) **Project SPROUT** (School on Learning, Perception & Robotics) funded by Euregio Mobility Funding UNITN: 7,600 €
- (2018-2019) **Project Depth from Monocular Video Streams**, research gift by Snap Inc., Funding UNITN: 28,674 €
- (2011 – 2012) **Project ALPS** (Autonomous, ultra Low Power visual Sensors for surveillance and monitoring). Funded under MAE Italy-Israel R&D Cooperation Program, Funding UNIPG: 40,000 €

### PhD grants acquired from competitive calls or sponsored by companies:

- (2019 – 2021) **Phd grant “Enabling Artificial Intelligence systems to Learn Continuously and Adaptively”** funded by European Institute of Technology (<https://www.eitdigital.eu/>)
- (2019 – 2021) **Phd grant Machine learning for Quantum Many-Body Phases recognition (MalQuPh)** funded by Q@TN (<https://www.quantumtrento.eu/>)
- (2018 – 2020) **Phd grant Domain Adaptation for Detection** funded by Italian Institute of Technology
- (2018 – 2020) **Phd grant ADAM (Advanced Digital Mapping)** funded by former Mapillary Research, now Facebook.

### Participation as researcher to the following projects:

- (2020-2022) **Project AI4Media** (A European Excellence Centre for Media, Society and Democracy)
- (2019-2021) **Project TALENT** (joint uAv and surveillance video content analysis and mining for smart city) funded by MAE ITALIA-CINA
- (2019 – 2020) **Project Xloader 4.0**, FESR 2014-2020, Legge Provinciale 6.
- (2016 – 2018) **H2020 EU project REPLICATE** (Creative-asset harvesting Pipeline to Inspire Collective-Authoring and Experimentation).
- (2014 – 2016) **FP7 EU project VENTURI** (Immersive Enhancement of User-world Interactions)

- (2011 – 2013) **Project HARNESS** (Human Adaptive Robotic Network of Sensors) funded by Italian Institute of Technology
- (2008-2010) **Project ACube** (Ambient Aware Assistance) financed by the Autonomous Province of Trento
- (2008 – 2013) **FP6 EU project PASCAL2** (Pattern Analysis, Statistical Modelling and Computational Learning 2) Network of Excellence
- (2006 – 2009) **FP6 EU project AMIDA** (Augmented Multi-party Interaction)
- (2006 – 2009) **FP6 EU project SMART** (Statistical Multilingual Analysis for Retrieval and Translation)
- (2003 – 2008) **FP6 EU project PASCAL** (Pattern Analysis, Statistical Modelling and Computational Learning 2) Network of Excellence
- (2006 – 2007) **NIH grant Scalable machine learning approaches for Computational Genomics**
- (2004 – 2006) **PRIN MIUR CNN applications to realtime processing of ophthalmic images as medical diagnosis support.**

## Teaching

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### At University of Trento:

- 2020/2021 - MSc course “Deep Learning” (6 CFU) – about 100 students
- 2020/2021 - BSc course “Introduction to Machine Learning” (6 CFU) – about 150 students
- 2020/2021 - BSc course “Applied Machine Learning” (6 CFU) – jointly with P. Rota
- 2019/2020 - MSc course “Deep Learning” (6 CFU) – about 100 students
- 2019/2020 - BSc course “Algoritmi Avanzati” (6 CFU) – jointly with S. Rota Bulò – about 150 students
- 2019/2020 - BSc course “Teoria dei Sistemi” (6 CFU) – about 80 students
- 2018/2019 - MSc course “Deep Learning” (6 CFU) – about 100 students
- 2018/2019 - MSc course “Affective Computing” (6 CFU) – jointly with N. Sebe – about 30 students
- 2018/2019 - BSc course “Teoria dei Sistemi” (6 CFU) – about 80 students
- 2018/2019 - Master in Autonomous Driving and Enabling Technologies, course “Deep Learning” (0.5 CFU)
- 2018/2019 - Master in Autonomous Driving and Enabling Technologies, course “Human Robot Interaction” (1 CFU)

### At University of Perugia:

- 2016/2017 - MSc course “Computer Vision” (6 CFU)
- 2016/2017 - Master in Data Science, course “Deep Learning” (3 CFU)
- 2013/2014 - MSc course “Optimization and Control” (9 CFU)
- 2012/2013 - MSc course “Optimization and Control” (9 CFU)
- 2012/2013 - PhD course “Dynamic Scene Understanding” (3 CFU)
- 2011/2012 - MSc course “Optimization and Control” (9 CFU)
- 2011/2012 - PhD course “Dynamic Scene Understanding” (18 hours)

## Awards

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- **Outstanding Associate Editor Award at *IEEE Transactions on Multimedia*, 2020.**
- **Nicholas Georganas ACM TOMM Best Paper Award, 2020**  
Paper: A. Siarohin, G. Zen, C. Majtanovic, X. Alameda-Pineda, E. Ricci, N. Sebe: Increasing Image Memorability with Neural Style Transfer, *ACM Trans. Multim. Comput. Commun. Appl.* 15(2): 42:1-42:22 (2019)
- **Honorable Mention Award at *ECCV Workshop on Transferring and Adapting Source Knowledge in Computer Vision*, 2018**  
Paper: M. Mancini, E. Ricci, B. Caputo, S. Rota Bulò: Adding New Tasks to a Single Network with Weight Transformations Using Binary Masks.
- **Best Student Paper Award “Eduardo Caianiello” at *Int. Conference on Image Analysis and Processing (ICIAP)*, 2017.**  
Paper: F.M. Carlucci, L. Porzi, B. Caputo, E. Ricci, S. Rota Bulò, Just DIAL: Domain Alignment Layers for Unsupervised Domain Adaptation.
- **INTEL Best Scientific Paper Award at *IEEE International Conference on Pattern Recognition (ICPR)*, 2016.**  
Paper: D. Xu, J. Song, X. Alameda-Pineda, E. Ricci, and N. Sebe, Multi-Paced Dictionary Learning for Cross-Domain Retrieval and Recognition.
- **Best Paper Award at *ACM Multimedia (ACM MM)*, 2015.**  
Paper: X. Alameda-Pineda, Y. Yan, E. Ricci, O. Lanz, N. Sebe, Analyzing Free-standing Conversational Groups: a Multimodal Approach.
- **Best IBM Student Award at *IEEE International Conference on Pattern Recognition (ICPR)*, 2014.**  
Paper: Y. Yan, E. Ricci, G. Liu, R. Subramanian, N. Sebe. Clustered Multi-task Linear Discriminant Analysis for View Invariant Color-Depth Action Recognition.
- **Best Student Poster Prize at GNY Area Multimedia and Vision Meeting.** Sponsored by Google Research.  
Paper: G. Zen, E. Sangineto, E. Ricci, N. Sebe, We are not All Equal: Personalizing Models for Facial Expression Analysis with Transductive Parameter Transfer, *ACM Multimedia (ACM MM)*, 2014.
- **Top 10% of accepted submissions Award**  
Paper: Y. Yan, G. Liu, E. Ricci and N. Sebe. “Multi-task Linear Discriminant Analysis for Multi-view Action Recognition”. *IEEE International Conference on Image Processing (ICIP)*. 2013.
- **Best Presentation Session “Robotics”, *Convegno Società Italiana Docenti e Ricercatori di Automatica (SIDRA)*, 2012.**

*Speaker:* Elisa Ricci. *Paper:* T. Ciarfuglia, G. Costante, P. Valigi and E. Ricci. A Discriminative Approach for Appearance Based Loop Closing. *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2012.

- **Student Travel Award** at *European Conf. on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD)*, 2007.
- **Outstanding Reviewer Award** at *IEEE Int. Conference on Computer Vision (ICCV)*, 2015.
- **Outstanding Reviewer Award** at *IEEE Int. Conference on Computer Vision and Pattern Recognition (CVPR)*, 2017.

## Invited Speaker

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This section contains a list of events (e.g. conferences, summer schools, etc) where I have been invited as keynote speaker. Additionally, every year I regularly attend major conferences and events and present my work in oral/poster presentations.

- Invited Speaker, TEDxTrento, August 2021, Trento.
- Invited Speaker, UCA Deep Learning School, July 2021, (virtual)
- Invited Speaker. Panel "Multimedia in the Era of Pervasive AI", International Conference on Multimedia Modeling, June 2021, Online.
- Invited Speaker, Summer school on optoelectronics and photonics: Neuromorphic Photonics, June 2021, (virtual)
- Invited Speaker, Machine Learning Summer School at Science Foundation Ireland, June 2021, (virtual)
- Invited Speaker, Deep Learning Summer School at MALGA, University of Genova, June 2021, (virtual)
- Invited Speaker, "AIM: Artificial Intelligence and Mathematics, fundamentals and beyond" seminars, February 2021 (virtual)
- Invited Speaker. Workshop "FGVRID - Fine-Grained Visual Recognition and re-Identification" at Int. Conf. on Pattern Recognition", January 2021, Milan.
- Invited Speaker. Panel "Coping with Pandemics: Opportunities and Challenges for AI Multimedia in the New Normal", ACM Multimedia, October 2020, Online.
- Invited Speaker. Huawei 5th International Video Intelligence Forum, September 2020, Online.
- Invited Speaker. Workshop "Brain inspired computing: From Neuroscience to Artificial Intelligence" October 2019, Modena.
- Invited Speaker. SAP Leonardo Machine Learning Retreat, October 2019, Berlin.
- Invited Speaker. International Summer School on Artificial Intelligence (AI-DLDA), 2019. June 3-7, 2019. Udine, Italy.
- Invited Speaker. DIBRIS, University of Genova, Genova. Title: Deep Domain Adaptation, Genova, May 10, 2019.
- Invited Speaker. Spring Courses at Scuola Superiore di Catania. Title: Deep Learning, Catania, Italy, 28-30 March 2019.
- Invited Speaker. Workshop Italy-Israel on Artificial Intelligence, Tel Aviv University, March 2019.
- Invited Speaker. IEEE PhD School Open Science Computing. Title: Introduction to Machine Learning and Deep Learning, September 2018, Perugia, Italy.
- Invited Speaker. IEEE PhD School Smarter Engineering for Industry 4.0 (Sme4I4.0). Title: Deep Learning for Industry 4.0, September 2017, Perugia, Italy.
- Invited Speaker. IEEE PhD School Open Science Computing. Title: Deep Learning, Perugia, Italy. (<http://fisgeo.unipg.it/sosc17/>), 5 June 2017.
- Invited Speaker. DIAG, University of Rome La Sapienza. Title: Human Behaviour Analysis in the Wild, Rome, April, 2016.
- Invited Speaker. University of Bristol. Title: Earth Mover's Prototypes Learning for Multi-scale Video Scene Analysis, Bristol, July 2012.
- Invited Speaker. DII, University of Siena. Title: Earth Mover's Prototypes Learning for Multi-scale Video Scene Analysis, Siena, September, 2011.
- Invited Speaker. University of Evry-Val d'Essonne. Title: SODA: Structured Output Discriminant Analysis, Evry, Paris, December 2008.
- Invited Speaker. Idiap Research Institute, Title: SODA: Structured Output Discriminant Analysis, Martigny, December 2008.
- Invited Speaker. Workshop "The Analysis of Patterns". Title: Moment-based approaches for structured output prediction, Bertinoro, Bologna, Italy, October 2007.
- Invited Speaker. Workshop "The Analysis of Patterns". Title: Patterns in vector spaces. Pula, Cagliari, Italy. September 2009.

## Conference, Workshop and Tutorial Organization

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I am actively involved in the organization of major conferences and events in the area of computer vision, multimedia and robot perception.

#### Program Chair:

- ACM Multimedia 2020, Seattle, USA.
- Int. Conference on Image Analysis and Processing (ICIAP) 2019, Trento, Italy

#### Senior Track Chair:

- International Conference on Pattern Recognition (ICPR) (Track Media Analysis and Understanding).

#### Dissemination Chair:

- International Conference on Artificial Intelligence and Statistics (AISTATS) 2020

#### Diversity Chair:

- ACM Multimedia 2022

#### Tutorial Chair:

- ACM Multimedia 2021

#### Area Chair & Senior PC for the following conferences:

- International Conference on Robotics and Automation (ICRA) 2021
- British Machine Vision Conference (BMVC) 2021
- ACM Multimedia (ACM MM) 2021
- International Conference on Multimodal Interaction (2021)
- International Conference on Artificial Intelligence and Statistics (AISTATS) 2021
- British Machine Vision Conference (BMVC) 2020
- ACM Multimedia (ACM MM) 2019
- International Conference on Robotics and Automation (ICRA) 2019
- International Conference on Multimedia Retrieval (ICMR) 2019
- International Conference on Robotics and Automation (ICRA) 2018
- ACM Multimedia (ACM MM) 2018
- International Conference on Computer Vision (ICCV) 2017
- ACM Multimedia (ACM MM) 2017
- European Conference on Computer Vision (ECCV) 2016
- ACM Multimedia (ACM MM) 2016

#### Workshops and tutorials organizer:

- Organizer of the Workshop on Video Scene Parsing in the Wild, International Conference on Computer Vision (ICCV), October 2021, Montreal, Canada.
- Organizer of the Workshop on 3D Object Detection from Images, International Conference on Computer Vision (ICCV), October 2021, Montreal, Canada.
- Tutorial Co-chair e Speaker in the tutorial "Data-Efficient Learning in An Imperfect World", International Conference on Computer Vision and Pattern Recognition (CVPR), 2021 (virtual).
- Organizer of the Workshop on Human Behaviour Understanding (HBU), European Conference on Computer Vision (ECCV), 08 - 14 September 2018, Munich, Germany.
- Organizer of the Workshop on Human Behaviour Understanding (HBU), International Conference on Computer Vision (ICCV), 27 - 02 November 2019, Seoul, Korea.
- Tutorial Co-chair e Speaker in the tutorial "Emerging topics in learning from noisy and missing data" nella conferenza ACM Conference on Multimedia 2016, 15 - 19 October 2016, Amsterdam, The Netherlands.

## Research interests

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**Main interest:** My research lies at the intersection between computer vision, deep learning and robotic perception. In the last few years, my main focus is on developing novel machine and deep learning models for learning in weakly supervised settings, often under the presence of domain distribution shift. Therefore, my work has focused on domain adaptation, transfer/multi-task learning and continual learning, considering on relevant applications in computer vision and robotic perception (e.g. object recognition and detection, human pose estimation, robot localization from visual sensors).

**Other interests:** pattern recognition, augmented reality, image processing, convex and combinatorial optimization.

## Publications

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My research is published in top-level journals and conferences in Computer Vision, Machine Learning and Robotics. I regularly publish in journals such as IEEE Transaction on Pattern Analysis and Machine Intelligence and International Journal on Computer Vision (ranked first and 18-th in Computer Science according to Microsoft Academic<sup>2</sup>) and in conference like CVPR,

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<sup>2</sup> <https://academic.microsoft.com/journals/41008148>

NeurIPS and ICCV (ranked first, second and fifth in Computer Science according to Microsoft Academic<sup>3</sup>). The top three computer vision conferences (CVPR/ICCV/ECCV) and NeurIPS are highly competitive, with low acceptance rates: 20-30% (oral <5%).

#### Journal papers:

- [J1] M. Mancini, L. Porzi, S. Rota Bulò, B. Caputo, E. Ricci. Inferring Latent Domains for Unsupervised Deep Domain Adaptation. *IEEE Trans. Pattern Anal. Mach. Intell.* 43(2): 485-498, 2021.
- [J2] S. Roy, A. Siarohin, E. Sangineto, N. Sebe, E. Ricci. TriGAN: image-to-image translation for multi-source domain adaptation. *Mach. Vis. Appl.* 32(1): 41, 2021.
- [J3] D. Xu, X. Alameda-Pineda, W. Ouyang, E. Ricci, X. Wang, N. Sebe, Probabilistic Graph Attention Network with Conditional Kernels for Pixel-Wise Prediction. *IEEE Trans. Pattern Anal. Mach. Intell.* , 2021.
- [J4] S. Roy et al. Deep Learning for Classification and Localization of COVID-19 Markers in Point-of-Care Lung Ultrasound, *IEEE Transaction on Medical Imaging*, 2020.
- [J5] M. Mancini, L. Porzi, B. Caputo, E. Ricci, S. Rota Bulò, Boosting Binary Masks for Multi-Domain Learning through Affine Transformations, *Machine Vision and Applications*, 2020.
- [J6] F.M. Carlucci, L. Porzi, B. Caputo, E. Ricci, SR Bulò, *MultIDIAL: Domain Alignment Layers for (Multisource) Unsupervised Domain Adaptation*, *IEEE Transactions on Pattern Analysis and Machine Intelligence* (accepted), 2020.
- [J7] S. Cascianelli, G. Costante, F. Crocetti, E. Ricci, P. Valigi, M. Fravolini, *Data-based design of robust fault detection and isolation residuals via LASSO optimization and Bayesian filtering*, *Asian Journal Of Control* (accepted), 2020.
- [J8] D. Fontanel, F. Cermelli, M. Mancini, S. Rota Bulò, E. Ricci, B. Caputo, *Boosting Deep Open World Recognition by Clustering*. *IEEE Robotics and Automation Letters*, 2020.
- [J9] X. Alameda-Pineda, E. Ricci, Salah, N. Sebe, S. Yan. Special Issue on Generating Realistic Visual Data of Human Behavior. *International Journal Computer Vision* 128(5): 1376-1377, 2020.
- [J10] W. Wang, X. Alameda-Pineda, D. Xu, E. Ricci, N. Sebe. *Learning How to Smile: Expression Video Generation with Conditional Adversarial Recurrent Nets*, *IEEE Transactions on Multimedia*, 2020.
- [J11] D. Xu, E. Ricci, W. Ouyang, X. Wang, N. Sebe. Monocular Depth Estimation Using Multi-Scale Continuous CRFs as Sequential Deep Networks. *IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI)* 41(6): 1426-1440, 2019.
- [J12] A. Pilzer, S. Lathuilière, D. Xu, M. M. Puscas, E. Ricci, N. Sebe, Progressive Fusion for Unsupervised Binocular Depth Estimation using Cycled Networks, *IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI)*, 2019.
- [J13] A. Siarohin, G. Zen, C. Majtanovic, X. Alameda-Pineda, E. Ricci, N. Sebe. Increasing Image Memorability with Neural Style Transfer. *ACM Trans. Multim. Comput. Commun. Appl.* 15(2): 42:1-42:22, 2019.
- [J14] J. Varadarajan, R. Subramanian, S. Rota Bulò, N. Ahuja, O. Lanz, E. Ricci: Joint Estimation of Human Pose and Conversational Groups from Social Scenes. *International Journal of Computer Vision* 126(2-4):410-429, 2018.
- [J15] M. Mancini, S. Rota Bulò, B. Caputo, E. Ricci, Robust Place Categorization With Deep Domain Generalization. *IEEE Robotics and Automation Letters* 3(3): 2093-2100, 2018.
- [J16] D. Xu, X. Alameda-Pineda, J. Song, E. Ricci, N. Sebe: Cross-Paced Representation Learning With Partial Curricula for Sketch-Based Image Retrieval. *IEEE Trans. Image Processing* 27(9): 4410-4421, 2018.
- [J17] L. Porzi, S. Rota Bulò, A. Peñate-Sánchez, E. Ricci, F. Moreno-Noguer, "Learning Depth-aware Deep Representations for Robotic Perception", *IEEE Robotics and Automation Letters*, 2017.
- [J18] M. Mancini, S. Rota Bulò, B. Caputo, E. Ricci, Learning Deep NBNN Representations for Robust Place Categorization. *IEEE Robotics and Automation Letters* 3(3): 2093-2100, 2017.
- [J19] L. Porzi, S. Rota Bulò, O. Lanz, P. Valigi, E. Ricci, "An Automatic Image-to-DEM Alignment Approach for Annotating Mountains Pictures on a Smartphone", *Machine Vision and Applications (MVA)*, *Mach. Vis. Appl.* 28(1-2): 101-115, 2017.
- [J20] D. Xu, Y. Yan, E. Ricci, N. Sebe. "Detecting Anomalous Events in Videos by Learning Deep Representations of Appearance and Motion", *Computer Vision and Image Understanding (CVIU)*, 156: 117-127, 2017.
- [J21] Y. Yan, E. Ricci, G. Liu, O. Lanz, N. Sebe. "A Multi-task Learning Framework for Head Pose Estimation under Target Motion", *IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI)*, 2016.
- [J22] X. Alameda-Pineda, J. Staiano, R. Subramanian, L. M. Batrinca, E. Ricci, B. Lepri, O. Lanz, N. Sebe. "SALSA: A Novel Dataset for Multimodal Group Behavior Analysis". *IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI)*, 2016.
- [J23] G. Zen, L. Porzi, E. Sangineto, E. Ricci, N. Sebe. "Learning Personalized Models for Facial Expression Analysis and Gesture Recognition. *IEEE Trans. Multimedia* 18(4): 775-788, 2016.
- [J24] G. Costante, T. A. Ciarfuglia, P. Valigi, E. Ricci. "Transferring knowledge across robots: A risk sensitive approach", *Robotics and Autonomous Systems*. 65: 1-14, 2015.
- [J25] Y. Yan, E. Ricci, G. Liu, N. Sebe. "Egocentric Daily Activity Recognition via Multitask Clustering", *IEEE Transaction on Image Processing (TIP)*, 24(10): 2984-2995, 2015.
- [J26] A. Rajagopal, R. Subramanian, E. Ricci, R. Vieriu, O. Lanz, N. Sebe, "Exploring Transfer Learning Approaches for Head Pose Classification from Multi-view Surveillance Images", *International Journal of Computer Vision (IJCV)*, pages 1-22, 2014.
- [J27] Y. Yan, E. Ricci, R. Subramanian, G. Liu, N. Sebe: Multitask Linear Discriminant Analysis for View Invariant Action Recognition. *IEEE Trans. Image Processing* 23(12): 5599-5611, 2014.

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<sup>3</sup> <https://academic.microsoft.com/conferences/41008148>



- [J28] T. A. Ciarfuglia, G. Costante, P. Valigi, E. Ricci: Evaluation of non-geometric methods for visual odometry. *Robotics and Autonomous Systems* 62(12): 1717-1730. 2014.
- [J29] E. Ricci, G. Zen, S. Messelodi and N. Sebe. A Prototype Learning Framework using EMD: Application to Complex Scenes Analysis, *IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI)*, 2013.
- [J30] L. Bissi, G. Baruffa, P. Placidi, E. Ricci, A. Scorzoni and P. Valigi. "Automated defect detection in uniform and structured fabrics using Gabor filters and PCA", *Journal of Visual Communication and Image Representation*, 2013.
- [J31] E. Ricci, T. De Bie, N. Cristianini, Magic Moments for Structured Output Prediction. *Journal of Machine Learning Research*: 9(Dec) 2008, pp. 2803-2846.
- [J32] E. Ricci, R. Perfetti, Recurrent Correlation Associative Memories: A Feature Space Perspective, *IEEE Transactions on Neural Networks*, vol. 19, n.2, 2008, pp. 333-345.
- [J33] E. Ricci, R. Perfetti, Retinal blood vessel segmentation using line operators and support vector classification, *IEEE Transaction on Medical Imaging*, vol., 26, n.10, October 2007, pp.1357-1365.
- [J34] R. Perfetti, E. Ricci, D. Casali, G. Costantini, Cellular neural network with virtual template expansion for Retinal Vessel Segmentation. *IEEE Transactions on Circuits and Systems*, vol.54, n. 2, February 2007, pp.141-145.
- [J35] R. Perfetti, E. Ricci, Analog neural network for support vector machine learning, *IEEE Transactions on Neural Networks*, vol.17, n. 4, July 2006, pp. 1085-1091.
- [J36] E. Ricci, R. Perfetti, Improved pruning strategy for radial basis function networks with dynamic decay adjustment, *Neurocomputing*, vol.69, Issues 13-15, August 2006, pp.1728-1732.
- [J37] E. Ricci, L. Rugini, R. Perfetti, SVM based CDMA receiver with incremental active learning, *Neurocomputing*, vol.69, Issues 13-15, August 2006, pp.1691-1696.
- [J38] R. Perfetti, E. Ricci, Reduced complexity RBF classifiers with support vector centres and dynamic decay adjustment, *Neurocomputing*, vol.69, Issues 16-18, October 2006, pp. 2446-2450.
- [J39] D. Casali, G. Costantini, R. Perfetti, E. Ricci, Associative memory design using support vector machines, *IEEE Transactions on Neural Networks*, vol., 17, n.5, September 2006, pp.1165-1174.

#### Conference papers:

- [C1] W. Menapace, S. Lathuilière, S. Tulyakov, A. Siarohin, E. Ricci, Playable Video Generation, *IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)* 2021. **(Oral, 3% acceptance rate)**
- [C2] S. Roy, E. Krivosheev, Z. Zhong, N. Sebe, E. Ricci, Curriculum Graph Co-Teaching for Multi-Target Domain Adaptation, *IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)* 2021
- [C3] Z. Zhong, E. Fini, S. Roy, Z. Luo, E. Ricci, N. Sebe, Neighborhood Contrastive Learning for Novel Class Discovery, *IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)* 2021.
- [C4] T. Nguyen, S. Lathuilière, E. Ricci, Multi-Domain Image-to-Image Translation with Adaptive Inference Graph. *International Conference on Pattern Recognition (ICPR)*, 2021.
- [C5] L. O. Vasconcelos, M. Mancini, D. Boscaini, S. Rota Bulò, B. Caputo, E. Ricci, Shape Consistent 2D Keypoint Estimation under Domain Shift. *International Conference on Pattern Recognition (ICPR)*, 2021.
- [C6] P. Ardino, Y. Liu, E. Ricci, B. Lepri, M. De Nadai, Semantic-Guided Inpainting Network for Complex Urban Scenes Manipulation. *International Conference on Pattern Recognition (ICPR)*, 2021.
- [C7] A. Siarohin, S. Roy, S. Lathuilière, S. Tulyakov, E. Ricci, N. Sebe, Motion-supervised Co-Part Segmentation. *International Conference on Pattern Recognition (ICPR)*, 2021. **(Oral, 5% acceptance rate)**
- [C8] E. Fini, S. Lathuilière, E. Sangineto, M. Nabi, E. Ricci, Online Continual Learning under Extreme Memory Constraints. *European Conference on Computer Vision (ECCV)*, 2020.
- [C9] W. Menapace, S. Lathuilière, E. Ricci, Learning to Cluster under Domain Shift, *European Conference on Computer Vision (ECCV)*, 2020.
- [C10] Andrea Simonelli, Samuel Rota Bulò, Lorenzo Porzi, Elisa Ricci, Peter Kontschieder, Towards Generalization Across Depth for Monocular 3D Object Detection, *European Conference on Computer Vision (ECCV)*, 2020.
- [C11] M. Mancini, Z. Akata, E. Ricci, B. Caputo, Towards Recognizing Unseen Categories in Unseen Domains. *European Conference on Computer Vision (ECCV)*, 2020.
- [C12] D. Fontanel, F. Cermelli, M. Mancini, S. Rota Bulò, E. Ricci, B. Caputo, Boosting Deep Open World Recognition by Clustering. *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2020.
- [C13] F. Cermelli, M. Mancini, S. Rota Bulò, E. Ricci, B. Caputo, Modeling the Background for Incremental Learning in Semantic Segmentation. *IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)* 2020.
- [C14] Z. Zhang, S. Lathuilière, A. Pilzer, N. Sebe, E. Ricci, J. Yang, Online Adaptation through Meta-Learning for Stereo Depth Estimation. *IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)* 2020.
- [C15] L. O. Vasconcelos, M. Mancini, D. Boscaini, B. Caputo, E. Ricci, Structured Domain Adaptation for 3D Keypoint Estimation. *International Conference on 3D Vision (3DV)* 2019.
- [C16] A. Siarohin, S. Lathuilière, S. Tulyakov, E. Ricci, N. Sebe, First Order Motion Model for Image Animation. *NeurIPS* 2019
- [C17] F. Cermelli, M. Mancini, E. Ricci, B. Caputo, The RGB-D Triathlon: Towards Agile Visual Toolboxes for Robots. *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2019.
- [C18] R. Berriel, S. Lathuilière, M. Nabi, T. Klein, T. Oliveira-Santos, N. Sebe, E. Ricci, Budget-aware adapter for multi-domain learning, *International Conference on Computer Vision (ICCV)* 2019.
- [C19] M. Mancini, H. Karaoguz, E. Ricci, P. Jensfelt, B. Caputo, Knowledge Is Never Enough: Towards Web Aided Deep Open World Recognition, *ICRA* 2019.
- [C20] M. Mancini, S.R. Bulò, B. Caputo, E. Ricci, "AdaGraph: Unifying Predictive and Continuous Domain Adaptation through Graphs", *IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)* 2019. **(Spotlight Oral, 8% acceptance rate)**
- [C21] A. Pilzer, S. Lathuilière, N. Sebe, E. Ricci, "Refine and Distill: Exploiting Cycle-Inconsistency and Knowledge Distillation for Unsupervised Monocular Depth Estimation", *IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)* 2019.

- [C22] S Roy, A Siarohin, E Sangineto, SR Bulò, N Sebe, E Ricci, Unsupervised Domain Adaptation using Feature-Whitening and Consensus Loss, *IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)* 2019.
- [C23] A Siarohin, S Lathuilière, S Tulyakov, E Ricci, N Sebe, Animating arbitrary objects via deep motion transfer, *IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)* 2019. ([Spotlight Oral, 8% acceptance rate](#))
- [C24] A. Pilzer, D. Xu, M. Marian Puscas, E. Ricci, N. Sebe, Unsupervised Adversarial Depth Estimation Using Cycled Generative Networks. *International Conference on 3D Vision (3DV)* 2018.
- [C25] M. Mancini, L. Porzi, S. Rota Bulò, B. Caputo, E. Ricci, Boosting Domain Adaptation by Discovering Latent Domains. *International Conference on Computer Vision and Pattern Recognition (CVPR)* 2018. ([Spotlight Oral, 8% acceptance rate](#))
- [C26] D. Xu, W. Wang, H. Tang, H. Liu, N. Sebe, E. Ricci, Structured Attention Guided Convolutional Neural Fields for Monocular Depth Estimation. *International Conference on Computer Vision and Pattern Recognition (CVPR)* 2018. ([Spotlight Oral, 8% acceptance rate](#))
- [C27] W. Wang, X Alameda-Pineda, D. Xu, P. Fua, E. Ricci, N. Sebe: Every Smile Is Unique: Landmark-Guided Diverse Smile Generation, *International Conference on Computer Vision and Pattern Recognition (CVPR)* 2018.
- [C28] A. Siarohin, G. Zen, N. Sebe, E. Ricci, Enhancing Perceptual Attributes with Bayesian Style Generation. *Asian Conference on Computer Vision (ACCV)* 2018.
- [C29] M. Mancini, E. Ricci, B. Caputo, S. Rota Bulò: Adding New Tasks to a Single Network with Weight Transformations Using Binary Masks. *ECCV Workshops (2)* 2018:180-189 [Honorable Mention Award](#)
- [C30] M. Mancini, L. Porzi, S. Rota Bulò, B. Caputo, E. Ricci: Best Sources Forward: Domain Generalization through Source-Specific Nets. *IEEE International Conference on Image Processing (ICIP)* 2018.
- [C31] M. Mancini, H. Karaoguz, E. Ricci, P. Jensfelt, B. Caputo: Kitting in the Wild through Online Domain Adaptation. *IROS* 2018.
- [C32] D.Xu, E. Ricci, W. Ouyang, X. Wang, N. Sebe, Multi-Scale Continuous CRFs as Sequential Deep Networks for Monocular Depth Estimation, *International Conference on Computer Vision and Pattern Recognition (CVPR)* , 2017. ([Spotlight Oral, 8% acceptance rate](#))
- [C33] D.Xu, W. Ouyang, E. Ricci, X. Wang, N. Sebe, "Learning Cross-Modal Deep Representations for Robust Pedestrian Detection", in *International Conference on Computer Vision and Pattern Recognition (CVPR)*, 2017.
- [C34] X. Alameda-Pineda, A. Pilzer, D. Xu, N. Sebe, E. Ricci, Viraliency: pooling local virality, in *International Conference on Computer Vision and Pattern Recognition (CVPR)* 2017.
- [C35] F. M. Carlucci, L. Porzi, B. Caputo, E. Ricci, S. Rota Bulò: AutoDIAL: Automatic Domain Alignment Layers. *ICCV* 2017.
- [C36] F. M. Carlucci, L. Porzi, B. Caputo, E. Ricci, S. Rota Bulò, Just DIAL: Domain Alignment Layers for Unsupervised Domain Adaptation. *ICIAP* 2017. [E. Caianiello Best Student Paper Award](#)
- [C37] L. Porzi, A. Peñate Sánchez, E. Ricci, F. Moreno-Noguer: Depth-aware convolutional neural networks for accurate 3D pose estimation in RGB-D images. *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2017
- [C38] A. Siarohin, G. Zen, C. Majtanovic, X. Alameda-Pineda, E. Ricci, N. Sebe. How to Make an Image More Memorable?: A Deep Style Transfer Approach. *ICMR* 2017.
- [C39] D. Xu, W. Ouyang, X. Alameda-Pineda, E. Ricci, X. Wang, N. Sebe: Learning Deep Structured Multi-Scale Features using Attention-Gated CRFs for Contour Prediction. *Advances in Neural Information Processing Systems (NIPS)*, 2017.
- [C40] X. Alameda-Pineda, E. Ricci, Y. Yan, and N. Sebe, "Recognizing Emotions from Abstract Paintings using Non-Linear Matrix Completion," in *IEEE International Conference on Computer Vision and Pattern Recognition, Las Vegas, USA, 2016*.
- [C41] S. Tulyakov, X. Alameda-Pineda, E. Ricci, L. Yin, J. F. Cohn, and N. Sebe, "Self-Adaptive Matrix Completion for Heart Rate Estimation from Face Videos under Realistic Conditions," in *IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)*, 2016. ([Oral, 3% acceptance rate](#))
- [C42] D. Xu, X. Alameda-Pineda, J. Song, E. Ricci, and N. Sebe, "Academic Coupled Dictionary Learning for Sketch-based Image Retrieval," in *ACM International Conference on Multimedia*, 2016.
- [C43] L. Porzi, S. Rota-Bulò, E. Ricci, "A Deeply-Supervised Deconvolutional Network for Horizon Line Detection", in *ACM International Conference on Multimedia*, 2016.
- [C44] D. Xu, J. Song, X. Alameda-Pineda, E. Ricci, and N. Sebe, "Multi-Paced Dictionary Learning for Cross-Domain Retrieval and Recognition," in *IEEE International Conference on Pattern Recognition*, Cancun, Mexico, 2016. [INTEL Best Scientific Paper Award](#)
- [C45] X. Alameda-Pineda, Y. Yan, E. Ricci, O. Lanz, N. Sebe, "Analyzing Free-standing Conversational Groups: a Multimodal Approach", In *ACM Multimedia (ACM MM)*, 2015 [Best Paper Award](#)
- [C46] E. Ricci, J. Varadarajan, R. Subramanian, S. Rota Bulò, N. Ahuja, O. Lanz, "Uncovering Interactions and Interactors: Joint Estimation of Head, Body Orientation and F-formations from Surveillance Videos", *International Conference on Computer Vision (ICCV)*, 2015. ([Oral, 3% acceptance rate](#))
- [C47] L. Porzi, S. Rota-Bulò, B. Lepri, E. Ricci, "Predicting and Understanding Urban Perception with Convolutional Neural Networks", In *ACM Multimedia (ACM MM)*, 2015. ([Oral presentation](#))
- [C48] R. Subramanian, J. Varadarajan, E. Ricci, O. Lanz, S. Winkler, "Jointly Estimating Interactions and Head, Body Pose of Interactors from Social Scenes", In *ACM Multimedia (ACM MM)*, 2015.
- [C49] D. Xu, E. Ricci, Y. Yan, J. Song, N. Sebe: "Learning Deep Representations of Appearance and Motion for Anomalous Event Detection", In *British Machine Vision Conference (BMVC)*, 2015
- [C50] G. Liu, Y. Yan, E. Ricci, Y. Yang, Y. Han, S. Winkler, N. Sebe: "Inferring Painting Style with Multi-task Dictionary Learning ", *International Joint Conferences on Artificial Intelligence (IJCAI)*, 2015.
- [C51] J.G.C. de Souza, M. Negri, E. Ricci, M. Turchi, "Online multitask learning for machine translation quality estimation.", In *Proc. Annual Meeting of the Association for Computational Linguistics (ACL)*, 2015.
- [C52] G. Zen, E. Sangineto, E. Ricci, N. Sebe. "We are not All Equal: Personalizing Models for Facial Expression Analysis with Transductive Parameter Transfer". In *ACM Multimedia*, 2014. [Best Student Poster Prize sponsored by Google Research at the 4th GNY Area Multimedia and Vision Meeting.](#)
- [C53] Y. Yan, E. Ricci, N. Rostamzadeh, N. Sebe. "It's All About Habits: Exploiting Multi-task Clustering for Activities of Daily Living Analysis". In *International Conference on Image Processing (ICIP)*, 2014.
- [C54] Y. Yan, E. Ricci, G. Liu, R. Subramanian, N. Sebe. "Clustered Multi-task Linear Discriminant Analysis for View Invariant Color-Depth Action Recognition". In *International Conference on Pattern Recognition (ICPR)*, 2014. [IBM Best Student Paper Award](#)
- [C55] Y. Yan, R. Subramanian, E. Ricci, O. Lanz, N. Sebe. "Evaluating Multi-task Learning for Multi-view Head-pose Classification in Interactive Environments". In *International Conference on Pattern Recognition (ICPR)*, 2014.



- [C56] G. Zen, E. Ricci, N. Sebe. "Simultaneous Ground Metric Learning and Matrix Factorization with Earth Mover's Distance". In *International Conference on Pattern Recognition (ICPR)*, 2014.
- [C57] G. Costante, E. Bellocchio, P. Valigi, E. Ricci. "Personalizing Vision-based Gestural Interfaces for HRI with UAVs: a Transfer Learning Approach", *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2014.
- [C58] G. Costante, V. Galieni, Y. Yan, M. Fravolini, E. Ricci, P. Valigi. "Exploiting Transfer Learning for Personalized View Invariant Gesture Recognition", *International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2014.
- [C59] G. Costante, L. Porzi, O. Lanz, P. Valigi and E. Ricci. "Personalizing a Smartwatch-based Gesture Interface with Transfer Learning". *European Signal Processing Conference (EUSIPCO)*, 2014.
- [C60] Y. Yan, E. Ricci, R. Subramanian, O. Lanz, N. Sebe, "No Matter Where You Are: Flexible Graph-guided Multi-task Learning for Multi-view Head Pose Classification Under Target Motion", *International Conference on Computer Vision (ICCV)*, 2013.
- [C61] Y. Yan, G. Liu, E. Ricci and N. Sebe. "Multi-task Linear Discriminant Analysis for Multi-view Action Recognition". *IEEE International Conference on Image Processing (ICIP)*. 2013. **Top 10% Accepted Paper Award**
- [C62] G. Costante, T. Ciarfuglia, P. Valigi and E. Ricci. "A Transfer Learning Approach for Multi-Cue Semantic Place Recognition". *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*. 2013.
- [C63] L. Porzi, S. Messelodi, C.M. Modena, E. Ricci. "A smart watch-based gesture recognition system for assisting people with visual impairments", *ACM International Workshop on Interactive Multimedia on Mobile and Portable Devices - IMMPD*. 2013.
- [C64] G. Costante, T. Ciarfuglia, P. Valigi and E. Ricci. "Transfer Learning for Visual Place Classification". *RSS Workshop on Robots in Clutter: Preparing robots for the real world*. 2013.
- [C65] G. Zen, E. Ricci and N. Sebe. Exploiting Sparse Representations for Robust Analysis of Noisy Complex Video Scenes. *European Conference on Computer Vision (ECCV)*. 2012.
- [C66] A. Rajagopal, R. Subramanian, R. Vieri, E. Ricci, O. Lanz, N. Sebe, K. Ramakrishnan, An Adaptation Framework for Head Pose Estimation in Dynamic Multi-view Scenarios, *Asian Conference on Computer Vision (ACCV)*, 2012.
- [C67] L. Bissi, G. Baruffa, P. Placidi, E. Ricci, A. Scorzoni and P. Valigi. Patch based yarn defect detection using Gabor filters. *IEEE International Instrumentation and Measurement Technology Conference (IMTC)*, 2012.
- [C68] M. Tiribuzi, M. Pastorelli, P. Valigi and E. Ricci. A Multiple Kernel Learning Framework for Detecting Altered Fingerprints. *International Conference on Pattern Recognition (ICPR)*, 2012.
- [C69] T. Ciarfuglia, G. Costante, P. Valigi and E. Ricci. A Discriminative Approach for Appearance Based Loop Closing. *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*. 2012.
- [C70] G. Zen, N. Rostamzadeh, J. Stajano, E. Ricci and N. Sebe. Enhanced Semantic Descriptors for Functional Scene Categorization. *International Conference on Pattern Recognition (ICPR)*, 2012.
- [C71] R. Vieri, A.K. Rajagopal, R. Subramanian, O. Lanz, E. Ricci, N. Sebe, K. Ramakrishnan. Boosting- based Transfer Learning for Multi-View Head-Pose Classification From Surveillance Videos. *Proceedings of the 20th European Signal Processing Conference (EUSIPCO)*, 2012.
- [C72] L. Porzi, E. Ricci, T. Ciarfuglia and M. Zanin. Visual-inertial Tracking on Android for Augmented Reality Applications, *IEEE Workshop on Environmental, Energy, and Structural Monitoring Systems (EESMS)*, 2012.
- [C73] A. Ragnacci, M. Pastorelli, P. Valigi and E. Ricci. Exploiting dimensionality reduction techniques for photovoltaic power forecasting. *ENERGYCON*, 2012.
- [C74] G. Zen, E. Ricci, N. Sebe, S. Messelodi. Sorting Atomic Activities for Discovering Spatio-temporal Patterns in Dynamic Scenes. *International Conference on Image Analysis and Processing (ICIAP)*, pp. 207-216, 2011.
- [C75] G. Zen and E. Ricci. Earth Mover's Prototypes: a Convex Learning Approach for Discovering Activity Patterns in Dynamic Scenes. *Computer Vision and Pattern Recognition (CVPR)*. 2011. **(Oral, 3% acceptance rate)**
- [C76] G. Zen, B. Lepri, E. Ricci and O. Lanz. Space Speaks - Towards Socially and Personality Aware Visual Surveillance. *ACM MM'10 Workshop, Multimodal Pervasive Video Analysis Workshop (MPVA)*, Firenze, Italy. 2010.
- [C77] G. Zen, O. Lanz, S. Messelodi and E. Ricci. Tracking Multiple People with Illumination Maps. *International Conference on Pattern Recognition (ICPR)*. 2010. pp. 3484-3487.
- [C78] E. Ricci, F. Tobia and G. Zen. "Learning Pedestrian Trajectories with Kernels". *International Conference on Pattern Recognition (ICPR)*. 2010. pp. 149-152.
- [C79] S. Duffner, J.M. Odobez, E. Ricci, Dynamic Partitioned Sampling For Tracking With Discriminative Features, in *British Machine Vision Conference (BMVC)*, London, September 2009.
- [C80] E. Ricci, J.M Odobez, Learning Large Margin Likelihoods for Realtime Head Pose Tracking, in *IEEE Int. Conference on Image Processing (ICIP)*, Cairo, Nov. 2009.
- [C81] E. Ricci, T. De Bie, N. Cristianini, Discriminative sequence labeling by Z-score optimization, *European Conference on Machine Learning (ECML)*, Warsaw, September, 2007.
- [C82] E. Ricci, T. De Bie, N. Cristianini, Learning to align: a statistical approach, *Proceedings of the 7th International Symposium on Intelligent Data Analysis (IDA)*, Ljubljana, September, 2007.
- [C83] M. Ciappa, M. Stangoni, W. Fichtner, A. Scorzoni, E. Ricci, On the Use of Neural Networks to Solve the Reverse Modelling Problem for the Quantification of Dopant Profiles Extracted by Scanning Probe Microscopy Techniques, *European symposium reliability of electron devices, failure physics and analysis (ESREF)*, 2004.

#### Books:

- [B1] **Editor:** X. Alameda-Pineda, E. Ricci, N. Sebe, "Multimodal Behavior Analysis in the Wild", Elsevier, 2018.

#### Chapters in books (invited):

- [BC1] X Alameda-Pineda, E Ricci, N Sebe, Multimodal analysis of free-standing conversational groups, *Frontiers of Multimedia Research*, 51-74, 2018
- [BC2] E. Ricci, Y. Yan, A. K. Rajagopal, R. Subramanian, R. L. Vieri, O. Lanz, N. Sebe, Exploring Multitask and Transfer Learning Algorithms for Head Pose Estimation in Dynamic Multiview Scenarios. *Group and Crowd Behavior for Computer Vision*, 67-87, 2017.
- [BC3] X. Alameda-Pineda, R. Subramanian, E. Ricci, O. Lanz, N. Sebe, SALSA: A Multimodal Dataset for the Automated Analysis of Free-Standing Social Interactions. *Group and Crowd Behavior for Computer Vision*, 321-340, 2017.

- [BC4] E. Ricci, R. Perfetti: Large Margin Methods for Structured Output Prediction. *Computational Intelligence Paradigms*, editors: Lakhmi C. Jain, Mika Sato-Ilic, Maria Virvou, George A. Tsihrintzis, Valentina Emilia Balas, Canicious Abeynayake, pp. 109-132, 2008.
- [BC5] N. Cristianini, E. Ricci: Support Vector Machines. *Encyclopedia of Algorithms*, editor: Ming-Yang Kao, 2008.

#### PhD thesis:

E. Ricci: Learning with sequences, graphs and images: a moment-based perspective. PhD thesis, Department of Electronic and Information Engineering, University of Perugia, 2008

#### Msc thesis:

E. Ricci: On the use of neural networks to solve the reverse modelling problem for Scanning Probe Microscopy (SPM)". Department of Electronic and Information Engineering, University of Perugia, 2004.

### Bibliometric indices

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**Google Scholar** (h-index 39, n.citations: 5962)

**Scopus** (h-index 30, n.citations: 3450)

**Academic Age:** 17 (2004-2020) – reduced to 16 considering two maternity leaves (6 months in 2015, 5 months in 2018).

ORCID NUMBER: [orcid.org/0000-0002-0228-1147](https://orcid.org/0000-0002-0228-1147)

### Patents

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**US patent US20170367590A1.** *Self-adaptive matrix completion for heart rate estimation from face videos under realistic conditions.* **Inventors:** Niculae Sebe, Xavier Alameda-Pineda, Sergey Tulyakov, Elisa Ricci, Lijun Yin, Jeffrey F. Cohn.

### Activity as Advisor (co-Advisor) for MSc-PhD Theses

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Currently supervising the PhD students:

- 2019-ongoing. Willi Menapace, University of Trento.  
Role: Advisor
- 2019-ongoing. Giacomo Zara, University of Trento.  
Role: Advisor
- 2019-ongoing. Enrico Fini, University of Trento.  
Role: Advisor
- 2019-ongoing. Cristiano Saltori, University of Trento.  
Role: Advisor. Co-advisor Prof N.Sebe, University of Trento
- 2019-ongoing. Daniele Contessi, University of Trento  
Role: co-advisor. Advisor Alessio Recati (CNR)
- 2019-ongoing. Pierfrancesco Ardino, University of Trento.  
Role: co-advisor. Advisor: Bruno Lepri (FBK)
- 2018-ongoing. Andrea Simonelli, University of Trento.  
Role: Advisor. Co-advisor S.Rota Bulò, Facebook Research
- 2018-ongoing. Levi Osterno Vasconcelos, University of Trento.  
Role: Advisor. Co-advisor Prof B. Caputo, IIT
- 2018-ongoing. Subhankar Roy, University of Trento.  
Role: Advisor. Co-advisor Prof N.Sebe, University of Trento

Currently also supervising two senior postdocs (F. Arrigoni, UNITN; Yiming Wang, FBK) and two junior researcher (R. Franceschini UNITN; L. Zanella FBK).

In the past I have supervised the following PhD students:

- L. Porzi (advisor FBK, advisor Prof. P.Valigi), University of Perugia, now at Facebook Research
- G. Costante (advisor FBK, advisor Prof. P.Valigi), University of Perugia, now RTDB - University of Perugia
- D. Xu (advisor FBK, advisor Prof. N. Sebe), University of Trento, now at Oxford University
- A. Pilzer (advisor FBK, advisor Prof. N. Sebe), University of Trento, now at Huawei
- M. Mancini (advisor FBK, advisor Prof. B. Caputo), University of Rome La Sapienza, now at University of Tübingen

Supervision of Msc and Bachelor Students:

- 11 MSc & 10 BS students, University of Trento

- MSc – L. Zanella, C. Perantoni, N. Puica, W. Menapace, M. Marchiori, F. Marchioro, M. Michelotti, T. P. Nguyen, A. Rizzuto, K.I. Haque, H. Gebru
- BS – S. Nascivera, S. Morselli, M. Bortolon, L. Framba, L. Remondini, M. Molon, A. Salvaterra, C. Battisti, A. Vespoli, M. Rigotti
- Intern at FBK
  - D. Villota, Campus Imberos, Zaragoza - M. Mancini, University of Rome, La Sapienza
- 8 MSc students & 3BS, University of Perugia
  - MSc - E. Bellocchio, G. Picchiarelli, G. Costante, L. Porzi, M. Tiribuzi, A. Ragnacci, M. Bianchini, O. Luzzi
  - BS - M. Tosti, V. Galieni, R. Casagrande

Mentoring young female researchers in Computer Vision at WiCV @ CVPR 2019, ECCV 2018.

## Services

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### Journals:

#### Associate Editor:

- *Pattern Recognition* (from 2020 - ongoing)
- *Computer Vision and Image Understanding* (from 2020 - ongoing)
- *IEEE Transactions on Multimedia* (from 2014-ongoing)
- *IEEE Trans on Multimedia Computing Communications and Applications* (from 2018-ongoing)
- *IEEE Robotics and Automation Letters* (from 2018-ongoing)
- *Multimedia Systems (MMSJ)* (from 2019-ongoing)

#### Guest Editor:

- Special Issue "Spatial Perception for Intelligent Robots", *Frontiers*
- Special Issue "Selected Papers from the 25 th IAPR International Conference on Pattern Recognition", *Pattern Recognition Letters*
- Special Issue "Generating Realistic Visual Data of Human Behavior", *International Journal of Computer Vision*
- Special Issue "Deep vs Shallow: Learning for Emerging Web-scale Data Computing and Applications", *World Wide Web journal*.
- Special Issue "Multimedia Technologies in Extreme Surveillance", *Multimedia Tools and Applications*

**Reviewer:** IEEE Transaction on Multimedia, IEEE Transaction on Pattern Analysis and Machine Intelligence, International Journal of Computer Vision, Computer Vision and Image Understanding, Machine Vision and Applications, Neural Processing Letters, IEEE Robotics and Automation Letters, Journal of Artificial Intelligence, IEEE Transaction on Neural Networks.

### Conferences:

**Reviewer:** ICCV 2013-2021, CVPR 2014-2021, ACM Multimedia 2014-2015, NIPS 2010-2021, ECCV 2014-2020, ICMI-MLMI 2008-2016, ICMR 2017, ICRA 2015-2017, IROS 2010-2016, AISTATS 2016, ICIAP 2009-2015, EUSIPCO 2009-2011, ECML 2009, ICIAR 2012-2016, VISAPP 2012-2016.

Outstanding reviewer award at ICCV 2015, CVPR 2017.

**Membership:** Member of European Lab for Learning and Intelligent Systems (ELLIS), IEEE (Institute of Electrical and Electronics Engineers), CVPL (Associazione Italiana per la ricerca in Computer Vision, Pattern recognition e machine Learning), IAPR (International Association of Pattern Recognition), CINI Laboratory of Artificial Intelligence, Woman in Computer Vision association.

**Reviewer for Projects for the following institutions:** Swedish Research Council, Natural Sciences and Engineering Research Council (NSERC) Canada, Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI) Romania, I-SITE ULNE France, Croatian Science Foundation.

## Other activities

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### Activities at UNITN/FBK

- Coordinator of Msc Courses of EIT (European Institute of Technology), Trento node. (from 2018 till now)
- Member of the Executive Committee of Doctoral Program in Information and Communication Technology, University of Trento. (from 2018 till now)
- Member of the FBK Board "Digital Society" (from 2019 till now)
- Member of Quality Assessment Committee- PhD Program at Fondazione Bruno Kessler. (from 2017 till now)

Member of PhD Committee and Reviewer of Phd Thesis

- Member of PhD Committee. INRIA Sophia Antipolis - Méditerranée, FR, Candidate: Yaohui Wang, 2021.
- Member of PhD Committee. University of Trento, Trento (IT). Candidate: Hao Tang, May 2021.
- Reviewer of PhD Thesis. University of Modena e Reggio Emilia, Modena, IT, Candidate: Marcella Cornia. 2020.
- Reviewer of PhD Thesis, University of Padova, IT, Candidate: Gianluca Carletti, 2020.
- Member of PhD Committee. University of Verona, Verona, IT, Candidate: Marco Carletti. 2020.
- Reviewer of PhD Thesis. University of Genova, PhD Program in Bioengineering and Robotics, Genova, IT, Candidate: Elisa Maiettini. 2019.
- Member of PhD Committee. University of Verona, Verona, IT, Candidate: Irtiza Hasan. 2019.
- Member of PhD Committee. University of Verona, Verona, IT, Candidate: Theodore Tsemelis. 2019.
- Member of PhD Committee. University of Trento, Trento (IT). Candidate: Mihai Puscas, April 2018.
- Member of PhD Committee. École Doctorale Mathématiques, Sciences et Technologies de l'Information, Informatique, Grenoble, FR. Candidate: Stéphane Lathuilière. May 2018.
- Member of PhD Committee. University of Trento, Trento (IT). Candidate: Ionut Cosmin Duta, November 2017.
- Member of PhD Committee. University of Trento, Trento (IT). Candidate: Sergey Tulyakov, April 2017.
- Member of PhD Committee. University of Trento, Trento (IT). Candidate: Negar Rostamzadeh, April 2017.
- Member of PhD Committee. University of Trento, Trento (IT). Candidate: Giulia Wache, June 2016.
- Member of PhD Committee. University of Trento, Trento (IT). Candidate: Gloria Zen, April 2015.
- Member of PhD Committee. University of Trento, Trento (IT). Candidate: Andreza Sartori, April 2015.
- Member of PhD Committee. University of Trento, Trento (IT). Candidate: Yan Yan, April 2015.
- Member of PhD Committee. University of Trento, Trento (IT). Candidate: Jacopo Staiano April 2015.
- Member of PhD Committee. University of Trento, Trento (IT). Candidate: Nicola Cottini April 2012.

I hereby authorize the use of my personal details solely for circulation within the company according to the Italian Legislative Decree n° 196/2003

10/05/2021

*Elisa Ricci*