

Curriculum Vitae – Matteo Poggi

Contact: m.poggi@unibo.it

References: [Webpage](#), [Google Scholar](#)

Research Interests: Deep Learning, Computer Vision and 3D sensing, Embedded Computer Vision.

Employment:

- **University of Bologna, Italy - Assistant Professor** (Tenured in 2022) 2021-present
Course: *Digital Systems*, Department of Computer Science and Engineering (DISI)
Course: *Computer Architectures*, Department of Electrical, Electronic, and Information Engineering
Course: *Deep Scene Perception from Images*, PhD in Computer Science and Engineering
 - **University of Bologna, Italy - Adjunct Professor** 2020-2021
Course: *Digital Systems*, Department of Computer Science and Engineering (DISI)
 - **University of Bologna, Italy - Teaching Assistant** 2014-2020
Course: *Computer Architectures*, Department of Computer Science and Engineering (DISI)
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Education:

- **University of Bologna, Italy - Ph.D.** in Computer Science and Engineering 2014-2018
PhD Thesis: *"Deep-learning for 3D reconstruction"*
approved after examination by Prof. Torsten Sattler and Prof. Philippos Mordohai
Advisor: Stefano Mattoccia
 - **University of Bologna, Italy - Master Degree** in Computer Science and Engineering 2012-2014
Thesis: *"Improvements to a fast algorithm for accurate stereo matching"*
Advisors: Prof. Stefano Mattoccia, Dr. David Dermidjian, Prof. Roberto Manduchi
 - **University of Bologna, Italy - Bachelor Degree** in Computer Science and Engineering 2009-2012
Thesis: *"Development of a multi-platform GUI for a real-time stereo camera"*
Advisor: Prof. Giovanni Neri, Prof. Stefano Mattoccia
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Visiting:

- **ETH Zurich, Switzerland - Visiting Ph.D.** Student 2017
Topic: *"Semantic stereo matching"*
Advisors: Prof. Torsten Sattler, Prof. Andreas Geiger
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Fellowship:

- **University of Bologna, Italy** 2019-2021
Topic: *"Depth estimation from single and multiple images"* Postdoctoral Research Fellow
 - **University of Bologna, Italy** 2018-2019
Topic: *"Gate monitoring with stereo depth estimation"* Postdoctoral Research Fellow
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Honors and Awards:

- **7× Outstanding Reviewer award:** CVPR 2018, CVPR 2019, CVPR 2020, ACCV 2020, CVPR 2021, ECCV 2022, CVPR 2023
- **Intellectual Property Award – Future Mobility (IPA 2021)** for our patented technology *"Self-confident: online learning for detecting depth sensor failures"*
- **Best Paper Honorable Mention** to our work *"Neural Disparity Refinement for Arbitrary Resolution Stereo"* - International Conference on 3D Vision (**3DV 2021**)
- **Winner** of the OpenCV Spatial AI Competition, 2022 (eyecan reborn)
- **PhD Thesis Award – Honorable mention**, Italian Association for Computer Vision (**CVPL 2018**)

Funding (as PI or Co-PI):

- **RiverWatch (UNIBO PI)**, PRIN Project (39 000 Eur.) 2023-2025
- **Google GCP Credits (PI)** (16 900 \$) 2023-2024
- **PhD scholarship (Co-PI)**, Sony Depthsensing Solutions SA/NV (35 000 Eur., co-funded) 2023-2026
- **Airborne Mobility (PI)**, The Edge Company (40 000 Eur.) 2022-2023
- **Intellectual Property Award (PI)**, IPA 2021 (10 000 Eur.) 2022-2023
- **Proof of Concept UNIBO (Co-PI)**, University of Bologna (38 900 Eur.) 2022-2023
- **PhD scholarship (Co-PI)**, Sony Depthsensing Solutions SA/NV (65 000 Eur.) 2021-2024
- **RGB-Multispectral registration (Co-PI)**, Huawei (300 000 Eur.) 2021-2022
- **Proof of Concept MISE (PI)**, Italian Ministry of Economic Development (30 000 Eur.) 2020-2021
- **Proof of Concept UNIBO (PI)**, University of Bologna (28 500 Eur.) 2020-2021

Tutorials and Workshops:

- **ICCV** (virtual) 2021
1st Workshop on Traditional Computer Vision in the Age of Deep Learning (**TradiCV**)
- **ECCV** (Glasgow, UK) 2020
Topic: “Facing depth estimation in-the-wild with deep networks” ([website](#))
- **CVPR** (Seattle, Washington, US) 2020
Topic: “Learning and understanding single image depth estimation in the wild” ([website](#))
- **CVPR** (Long Beach, California, US) 2019
Topic: “Learning and understanding single image depth estimation in the wild” ([website](#))
- **3DV** (Verona, Italy) 2018
Topic: “Learning-based depth estimation from stereo and monocular images: successes, limitations and future challenges” ([website](#))

Reviewing and Editorial duties:

- I regularly review for computer vision conferences (**CVPR**, **ICCV**, **ECCV**, **BMVC**, **ACCV**, **3DV**, **WACV**) and journals (**TPAMI**, **IJCV**, **TIP**, **CVIU**)
- I am the lead guest editor of the Special Issue on “Traditional Computer Vision in the Age of Deep Learning”, hosted by the **International Journal on Computer Vision (IJCV)**

PhD Supervision (as supervisor or co-supervisor):

- Enrico Mannocci 2023-Ongoing
- Ziren Gong 2023-Ongoing
- Ugo Leone Cavalcanti 2023-Ongoing
- Luca Bartolomei 2022-Ongoing
- Alessio Mingozzi 2022-Ongoing
- Andrea Conti 2021-Ongoing
- Huan Li 2021-Ongoing
- Youmin Zhang 2020-Ongoing
- Rizhao Fan 2020-Ongoing
- Filippo Aleotti (now at Niantic) 2018-2021
- Fabio Tosi (now Assistant Professor, University of Bologna) 2017-2020

Invited Talks:

- University of Padua, Italy 2022
- CMP Prague, Czech Republic 2019
- BMVA meeting in London, UK 2019
- MPI Tübingen, Germany 2017

Past and Ongoing Collaborations:

- Google Zurich – Switzerland (Dr. Alessio Tonioni)
- TUM – Germany (Prof. Daniel Cremers)
- The Edge Company (Fabio Masci)
- Sony Depthensing Solutions SA/NV – Belgium (Dr. Valerio Cambareri)
- Korea University – South Korea (Prof. Seungryong Kim)
- KTH Institute – Sweden (Prof. Hedvig Kjellström)
- Politecnico di Torino – Italy (Prof. Andrea Calimera)
- CTU – Czech Republic (Prof. Torsten Sattler, Prof. Tomas Pajdla)
- Stevens Institute of Technology – US (Prof. Philippos Mordohai)
- Niantic – United Kingdom (Prof. Gabriel J. Brostow)

Scientific impact:

I co-authored 80 peer-reviewed papers, including 11× **CVPR**, 8× **ICCV**, 5× **TPAMI**, 4× **ECCV**, 5× **IROS**, 2× **ICRA**, 8× **3DV**, 1× **AAAI**. CVPR, ICCV and ECCV are highly competitive with acceptance rates of less than 30%. CVPR and TPAMI are the most highly cited IEEE conference and journal respectively¹, with the highest impact in Engineering and Computer Science. I am the **first author** or joint first author in **more than 30%** of my publications. I have strong expertise in:

- **Stereo Matching** (6× CVPR – 1 of them as **oral** – 4× PAMI, 2× ICCV, 3× ECCV, 4× 3DV)
- **Single-image Depth Estimation** (3× CVPR, 1× IROS, 3× 3DV)

Other bibliometric indices are reported below:

- *h*-index: 30 (Google Scholar), 22 (Scopus), 30 (ResearchGate)
- Number of citations: 2788 (Google Scholar), 1679 (Scopus), 2804 (ResearchGate)

Publications:

Journals

19. X. Qiao, C. Ge, Y. Zhang, Y. Zhou, F. Tosi, M. Poggi, S. Mattoccia, “Depth Super-Resolution from Explicit and Implicit High-Frequency Features”, **CVIU** (IF: **4.5**)
18. X. Qiao, C. Ge, C. Zhao, F. Tosi, M. Poggi, S. Mattoccia, “Self-supervised Depth Super-resolution with Contrastive Multiview Pre-training”, **Neural Networks (NN)** (IF: **7.8**)
17. X. Qiao, C. Ge, P. Deng, H. Wei, **M. Poggi**, S. Mattoccia, “Depth Restoration in Under-Display Time-of-Flight Imaging”, **TPAMI** (IF: **23.6**)
16. **M. Poggi**, F. Tosi, F. Aleotti, S. Mattoccia, “Real-time Self-Supervised Monocular Depth Estimation Without GPU”, **IEEE T-ITS** (IF: **8.5**)
15. A. Mingozzi, A. Conti, F. Aleotti, **M. Poggi**, S. Mattoccia, “Monitoring social distancing with single image depth estimation”, **IEEE TETCI** (IF: **5.3**)

¹research.com/conference-rankings/computer-science, research.com/journals-rankings/computer-science

14. **M. Poggi**, A. Tonioni, F. Tosi, S. Mattoccia, L. Di Stefano, “Continual Adaptation for Deep Stereo”, **IEEE TPAMI** (IF:**23.6**)
13. **M. Poggi**, F. Tosi, K. Batsos, P. Mordohai, S. Mattoccia, “On the Synergies between Machine Learning and Binocular Stereo for Depth Estimation from Images: a Survey”, **IEEE TPAMI** (IF: **23.6**)
12. **M. Poggi**, S. Kim, F. Tosi, S. Kim, F. Aleotti, D. Min, K. Sohn, and S. Mattoccia, “On the Confidence of Stereo Matching in a Deep-Learning Era: a Quantitative Evaluation”, **IEEE TPAMI** (IF: **23.6**)
11. A. Cipolletta, V. Peluso, A. Calimera, **M. Poggi**, F. Tosi, F. Aleotti, S. Mattoccia, “Energy-Quality Scalable Monocular Depth Estimation on Low-Power CPUs”, **IEEE JIOT** (IF: **10.6**)
10. V. Peluso, A. Cipolletta, A. Calimera, **M. Poggi**, F. Tosi, F. Aleotti, S. Mattoccia, “Monocular Depth Perception on Microcontrollers for Edge Applications”, **IEEE TCSVT** (IF: **8.4**)
9. D. De Gregorio, **M. Poggi**, P. Zama Ramirez, G. Palli, S. Mattoccia, L. Di Stefano, “Beyond the Baseline: 3D Reconstruction of Tiny Objects with Single CameraStereo Robot”, **IEEE Access** (IF: **3.476**)
8. P. Tassinari, M. Bovo, S. Benni, S. Franzoni, **M. Poggi**, L. M. E. Mammi, S. Mattoccia, L. Di Stefano, F. Bonora, A. Barbaresi, E. Santolini, D. Torreggiani, “A computer vision approach based on deep learning for the detection of dairy cows in free stall barn”, **Computers and Electronics in Agriculture** (IF: **8.3**)
7. A. H. Livoroi, A. Conti, L. Foianesi, F. Tosi, F. Aleotti, **M. Poggi**, F. Tauro, E. Toth, S. Grimaldi and S. Mattoccia, “On the Deployment of Out-of-the-Box Embedded Devices for Self-Powered River Surface Flow Velocity Monitoring at the Edge”, **MDPI Applied Science** (IF: **2.838**)
6. F. Aleotti, G. Zaccaroni, L. Bartolomei, **M. Poggi**, F. Tosi, S. Mattoccia, “Real-time single image depth perception in the wild with handheld devices”, **MDPI Sensors** (IF: **3.576**)
5. A. Tonioni, **M. Poggi**, S. Mattoccia, L. Di Stefano, “Unsupervised Domain Adaptation for Depth Prediction from Images”, **IEEE TPAMI** (IF: **23.6**)
4. **M. Poggi**, F. Tosi, S. Mattoccia, “Learning a confidence measure in the disparity domain from $O(1)$ features”, **CVIU** (IF: **4.5**)
3. **M. Poggi**, F. Tosi, S. Mattoccia, “Good cues to learn from scratch a confidence measure for passive depth sensors”, **IEEE Sensors Journal** (IF: **4.325**)
2. **M. Poggi**, G. Agresti, F. Tosi, P. Zanuttigh, S. Mattoccia, “Confidence Estimation for ToF and Stereo Sensors and its Application to Depth Data Fusion”, **IEEE Sensors Journal** (IF: **4.325**)
1. F. Tosi, M. Rocca, F. Aleotti, **M. Poggi**, S. Mattoccia, F. Tauro, E. Toth, S. Grimaldi, “Enabling image-based streamflow monitoring at the edge”, **MDPI Remote Sensing** (IF: **4.848**)

Conferences

63. M. Botet Colomer, P. L. Dovesi, T. Panagiotakopoulos, J. F. Carvalho, L. Härenstam-Nielsen, H. Azizpour, H. Kjellström, D. Cremers, **M. Poggi**, “To Adapt or Not to Adapt? Real-Time Adaptation for Semantic Segmentation”, **ICCV 2023**
62. A. Costanzino, P. Zama Ramirez, **M. Poggi**, F. Tosi, S. Mattoccia, L. Di Stefano, “Learning Depth Estimation for Transparent and Mirror Surfaces”, **ICCV 2023**
61. L. Bartolomei, **M. Poggi**, F. Tosi, A. Conti, S. Mattoccia, “Active Stereo Without Pattern Projector”, **ICCV 2023**
60. Y. Zhang, F. Tosi, S. Mattoccia, **M. Poggi**, “GO-SLAM: Global Optimization for Consistent 3D Instant Reconstruction”, **ICCV 2023**

59. C. Zhao, **M. Poggi**, F. Tosi, Z. Lei, Q. Sun, Y. Tang, S. Mattoccia, “GasMono: Geometry-Aided Self-Supervised Monocular Depth Estimation for Indoor Scenes”, **ICCV 2023**
58. H. Li, **M. Poggi**, F. Tosi, S. Mattoccia, “On-Site Adaptation for Monocular Depth Estimation with a Static Camera”, **ORAL, BMVC 2023**
57. R. Fan, F. Tosi, **M. Poggi**, S. Mattoccia, “Lightweight Self-Supervised Depth Estimation with few-beams LiDAR Data”, **BMVC 2023**
56. Y. Zhang, **M. Poggi**, S. Mattoccia, “TemporalStereo: Efficient Spatial-Temporal Stereo Matching Network”, **IROS 2023**
55. G. Minelli, **M. Poggi**, S. Salti, “Depth self-supervision for single image novel view synthesis”, **IROS 2023**
54. F. Tosi, A. Tonioni, D. De Gregorio, **M. Poggi**, “NeRF-Supervised Deep Stereo”, **CVPR 2023**
53. Y. Zhang, X. Guo, **M. Poggi**, Z. Zhu, G. Huang, S. Mattoccia, “CompletionFormer: Depth Completion with Convolutions and Vision Transformers”, **CVPR 2023**
52. R. Fan, **M. Poggi**, S. Mattoccia, “Contrastive Learning for Depth Prediction”, **CVPRW 2023**
51. P. Zama Ramirez, F. Tosi, L. Di Stefano, R. Timofte, A. Costanzino, **M. Poggi**, S. Salti, S. Mattoccia, J. Shi, D. Zhang, Y. A. Y. Jin, D. Li, C. Li, Z. Liu, Q. Zhang, Y. Wang, S. Yin, “NTIRE 2023 Challenge on HR Depth From Images of Specular and Transparent Surfaces”, **CVPRW 2023**
50. J. Spencer, C. S. Qian, M. Trescakova, C. Russell, S. Hadfield, E. W. Graf, W. J. Adams, A. J. Schofield, J. Elder, R. Bowden, A. Anwar, H. Chen, X. Chen, K. Cheng, Y. Dai, H. T. Hoa, S. Hossain, J. Huang, M. Jing, B. Li, C. Li, B. Li, Z. Liu, S. Mattoccia, S. Mercelis, M. Nam, **M. Poggi**, X. Qi, J. Ren, Y. Tang, F. Tosi, L. Trinh, S. M. N. Uddin, K. M. Umair, K. Wang, Y. Wang, Y. Wang, M. Xiang, G. Xu, W. Yin, J. Yu, Q. Zhang, C. Zhao, “The Second Monocular Depth Estimation Challenge”, **CVPRW 2023**
49. L. De Luigi, D. Bolognini, F. Domeniconi, **M. Poggi**, L. Di Stefano, “ScanNeRF: a Scalable Benchmark for Neural Radiance Fields”, **WACV 2023**
48. A. Conti, **M. Poggi**, S. Mattoccia, “Sparsity Agnostic Depth Completion”, **WACV 2023**
47. J. Spencer, C. S. Qian, C. Russell, S. Hadfield, E. Graf, W. Adams, A. J. Schofield, J. Elder, R. Bowden, H. Cong, S. Mattoccia, **M. Poggi**, Z. K. Suri, Y. Tang, F. Tosi, H. Wang, Y. Zhang, Y. Zhang, C. Zhao, “The Monocular Depth Estimation Challenge”, **WACVW 2023**
46. **M. Poggi**, P. Zama Ramirez, F. Tosi, S. Salti, S. Mattoccia and L. Di Stefano, “Cross-Spectral Neural Radiance Fields”, **3DV 2022**
45. C. Zhao, Y. Zhang, **M. Poggi**, F. Tosi, X. Guo, Z. Zhu, G. Huang, Y. Tang and S. Mattoccia, **M. Poggi**, P. Zama Ramirez, F. Tosi, S. Salti, S. Mattoccia and L. Di Stefano, “MonoViT: Self-Supervised Monocular Depth Estimation with a Vision Transformer”, **3DV 2022**
44. R. Fan, L. Zhigen, **M. Poggi**, S. Mattoccia, “A Cascade Dense Connection Fusion Network for Depth Completion”, **BMVC 2022**
43. Theodoros Panagiotakopoulos, Pier Luigi Dovesi, Linus Härenstam-Nielsen, **M. Poggi**, “Online Domain Adaptation for Semantic Segmentation in Ever-Changing Conditions”, **ECCV 2022**
42. **M. Poggi**, A. Conti, S. Mattoccia, “Multi-View Guided Multi-View Stereo”, **IROS 2022**
41. A. Conti, **M. Poggi**, F. Aleotti, S. Mattoccia, “Unsupervised confidence for LiDAR depth maps and applications”, **IROS 2022**

40. P. Zama Ramirez, F. Tosi, **M. Poggi**, S. Salti, S. Mattoccia, L. Di Stefano, “Open Challenges in Deep Stereo: the Booster Dataset”, **CVPR 2022**
39. F. Tosi, P. Zama Ramirez, **M. Poggi**, S. Salti, S. Mattoccia, L. Di Stefano, “RGB-Multispectral Matching: Dataset, Learning Methodology, Evaluation”, **CVPR 2022**
38. S. Kim, **M. Poggi**, S. Kim, K. Sohn, S. Mattoccia, “Meta-confidence estimation for stereo matching”, **ICRA 2022**
37. F. Aleotti, F. Tosi, P. Zama Ramirez, **M. Poggi**, S. Salti, S. Mattoccia, L. Di Stefano, “Neural Disparity Refinement for Arbitrary Resolution Stereo”, **Best Paper Honorable Mention, 3DV 2021**
36. **M. Poggi**, F. Aleotti, S. Mattoccia, “Sensor-Guided Optical Flow”, **ICCV 2021**
35. F. Aleotti, **M. Poggi**, S. Mattoccia, “Learning optical flow from still images”, **CVPR 2021**
34. C. Cai, **M. Poggi**, S. Mattoccia, P. Mordohai, ”Matching-space Stereo Networks for Cross-domain Generalization”, **3DV 2020**
33. **M. Poggi**, F. Tosi, F. Aleotti, S. Mattoccia, “Leveraging a weakly adversarial paradigm for joint learning of disparity and confidence estimation”, **ICPR 2020**
32. **M. Poggi**, F. Aleotti, F. Tosi, G. Zaccaroni, S. Mattoccia, “Self-adapting confidence estimation for stereo”, **ECCV 2020**
31. F. Aleotti, F. Tosi, L. Zhang, **M. Poggi**, S. Mattoccia, “Reversing the cycle: self-supervised deep stereo through enhanced monocular distillation”, **ECCV 2020**
30. **M. Poggi**, F. Aleotti, F. Tosi, S. Mattoccia, “On the uncertainty of self-supervised monocular depth estimation”, **CVPR 2020**
29. F. Tosi, F. Aleotti, P. Zama Ramirez, **M. Poggi**, S. Salti, L. Di Stefano, S. Mattoccia, “Distilled Semantics for Comprehensive Scene Understanding from Videos”, **CVPR 2020**
28. V. Peluso, A. Cipolletta, A. Calimera, **M. Poggi**, F. Tosi, F. Aleotti, S. Mattoccia, “Enabling monocular depth perception at the very edge”, **CVPRW 2020**
27. P. L. Dovesi, **M. Poggi**, L. Andraghetti, M. Martì, H. Kjellstrom, A. Pieropan, S. Mattoccia, “Real-Time Semantic Stereo Matching”, **ICRA 2020**
26. F. Aleotti, **M. Poggi**, F. Tosi, S. Mattoccia, “Learning end-to-end scene flow by distilling single tasks knowledge”, **AAAI 2020**
25. L. Andraghetti, P. Myriokefalitakis, P. L. Dovesi, B. Luque, **M. Poggi**, A. Pieropan, S. Mattoccia, “Enhancing self-supervised monocular depth estimation with traditional visual odometry”, **3DV 2019**
24. **M. Poggi**, D. Pallotti, F. Tosi, S. Mattoccia, “Guided Stereo Matching”, **CVPR 2019**
23. F. Tosi, F. Aleotti, **M. Poggi**, S. Mattoccia, “Learning monocular depth estimation infusing traditional stereo knowledge”, **CVPR 2019**
22. A. Tonioni, F. Tosi, **M. Poggi**, S. Mattoccia, L. Di Stefano, “Real-time self-adaptive deep stereo”, **ORAL, CVPR 2019**
21. F. Tosi, **M. Poggi**, S. Mattoccia, “Leveraging confident points for accurate depth refinement on embedded systems”, **CVPRW 2019**
20. V. Peluso, A. Cipolletta, A. Calimera, **M. Poggi**, F. Tosi, S. Mattoccia, “Enabling Energy-Efficient Unsupervised Monocular Depth Estimation on ARMv7-Based Platforms”, **DATE 2019**

19. P. Zama Ramirez, **M. Poggi**, F. Tosi, S. Mattocchia, L. Di Stefano, “Geometry meets semantic for semi-supervised monocular depth estimation”, **ACCV 2018**
18. **M. Poggi**, F. Tosi, S. Mattocchia, “Learning monocular depth estimation with unsupervised trinocular assumptions”, **3DV 2018**
17. F. Tosi, **M. Poggi**, A. Benincasa, S. Mattocchia, “Beyond local reasoning for stereo confidence estimation with deep learning”, **ECCV 2018**
16. **M. Poggi**, F. Aleotti, F. Tosi, S. Mattocchia, “Towards real-time unsupervised monocular depth estimation on CPU”, **IROS 2018**
15. F. Aleotti, F. Tosi, **M. Poggi**, S. Mattocchia, “Generative Adversarial Networks for unsupervised monocular depth prediction”, **ECCVW 2018**
14. **M. Poggi**, F. Tosi, S. Mattocchia, “Quantitative evaluation of confidence measures in a machine learning world”, **SPOTLIGHT, ICCV 2017**
13. A. Tonioni, **M. Poggi**, S. Mattocchia, L. Di Stefano, “Unsupervised Adaptation for Deep Stereo”, **ICCV 2017**
12. F. Tosi, **M. Poggi**, A. Tonioni, L. Di Stefano, S. Mattocchia, “Learning confidence measures in the wild”, **BMVC 2017**
11. **M. Poggi**, F. Tosi, S. Mattocchia, “Efficient confidence measures for embedded stereo”, **ICIAP 2017**
10. **M. Poggi**, F. Tosi, S. Mattocchia, “Even More Confident predictions with deep machine-learning”, **CVPRW 2017**
9. **M. Poggi**, S. Mattocchia, “Learning to predict stereo reliability enforcing local consistency of confidence maps”, **CVPR 2017**
8. **M. Poggi**, S. Mattocchia, “Evaluation of variants of the SGM algorithm aimed at implementation on embedded or reconfigurable devices”, **IC3D 2016**
7. M. Boschini, **M. Poggi**, S. Mattocchia, “Improving the reliability of 3D people tracking system leveraging on deep-learning”, **IC3D 2016**
6. **M. Poggi**, S. Mattocchia, “Deep Stereo Fusion: combining multiple disparity hypotheses with deep-learning”, **3DV 2016**
5. **M. Poggi**, S. Mattocchia, “Learning a general-purpose confidence measure based on $O(1)$ features and a smarter aggregation strategy for semi global matching”, **ORAL, 3DV 2016**
4. **M. Poggi**, S. Mattocchia, “Learning from scratch a confidence measure”, **BMVC 2016**
3. **M. Poggi**, S. Mattocchia, “A wearable mobility aid for the visually Impaired based on embedded 3D vision and deep learning”, **ISCC 2015**
2. **M. Poggi**, L. Nanni, S. Mattocchia, “Crosswalk recognition through pointcloud processing and deep-learning suited to a wearable mobility aid for the visually impaired”, **ICIAPW 2015**
1. S. Mattocchia, **M. Poggi**, “A passive RGBD sensor for accurate and real-time depth sensing self-contained into an FPGA”, **ICDSC 2015**