

Pietro Zanuttigh

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Personal Data

- Birth date: 17 / 4 / 1978
- Birth place: Dolo (VE)
- Address: Via Belzoni 30, 35121 Padova (PD), Italy
- Nationality: Italian

Education

- 3/2007 Ph.D. course in Information Engineering (2007). Thesis: “A rate-distortion framework for transmission and remote visualization of 3D models”
- 2006 Visiting student at the Signal Processing Lab of the University of New South Wales (Sydney, Australia)
- 2/2003 “Laurea” degree in Computer Engineering. Final mark 110/110 cum laude

Career/Employment

- 10/2007 - now Assistant professor (“Ricercatore”) within the telecommunications research group of the Department of Information Engineering (University of Padova)
- 10/2010-12/2010 Visiting Researcher at the University of New South Wales (Sydney, Australia)
- 3/2007-10/2007 Research contract with the “Multimedia Technology and Telecommunications Laboratory” of the University of Padova on compression and transmission of 3D scenes
- 1/2004 - 3/2007 Ph.D. course in information engineering
- 3/2003 – 12/2003 Research contract with the “Multimedia Technology and Telecommunications Laboratory” of the University of Padova

Research interests

- Time-of-Flight sensors for dynamic 3D scenes acquisition
- Fusion of multiple sensors for 3D reconstruction (cameras and Time-Of-Flight sensors)
- Joint segmentation and semantic labeling of color and depth representations
- Content-based retrieval and classification of 3D models
- Hand gesture recognition from color and depth data
- Deep learning for 3D and multi-view data
- Compression of depth maps
- Scalable compression of multi-view plus depth representations
- Transmission and interactive remote visualization of 3D scenes

Didactic activities

2017/2018	Course “Computer Vision”, Dept. of information engineering, University of Padova
2015/2016	Course “Computer Vision”, Dept. of information engineering, University of Padova
2015/2016	Course “Image and Video Analysis”, Dept. of information engineering, University of Padova
2014/2015	Course “Image and Video Analysis”, Dept. of information engineering, University of Padova
2013/2014	Course “Image and Video Analysis”, Dept. of information engineering, University of Padova
2012/2013	Course “Source Coding”, Dept. of information engineering, University of Padova
2011/2012	Course “Source Coding”, Dept. of information engineering, University of Padova

- 2009/2010 Course “Elaborazione delle immagini e Grafica 3D” (Image processing and 3D graphics), Dept. of information engineering, University of Padova
- 2008/2009 Course “Elaborazione numerica delle immagini” (Digital image processing), Dept. of information engineering, University of Padova
- 2007/2008 Teaching assistant in the course “Elaborazione numerica dei segnali” (Digital signal processing), Dept. of information engineering, University of Padova

Research projects

- 2016-2019 Industrial project: “Next generation Time-of-Flight cameras”, funded by Sony EuTec
- 2015-17 University funded project: “3D Touch-less Interaction”
- 2014-17 European project “Mu-Blast: Study of the capability of muon tomography to map the material composition inside a blast furnace”
- 2015-16 Industrial project: “Sistema di riconoscimento gestuale di tipo touch-less per applicazioni di Visual Configurator” (Touch-less gesture recognition system for visual configurator applications) (*Principal Investigator*)
- 2014-16 University funded project: “3D Cloud Vision: augmented 3D vision and scene understanding in distributed networks”
- 2014-15 FSE project, “Smart 2D/3D cameras for applications in the city environment”, Veneto Region (*Principal Investigator*)
- 2012-14 University funded project: “3D Touch-less Interaction” (*Principal Investigator*)
- 2010-13 European project “MUSTEEL: Muons scanner to detect radioactive sources hidden in scrap metal containers”
- 2010-2011 University funded project: “Decision algorithms for the muon tomography”
- 2008-2009 University funded project: “Compression and transmission of static and dynamic 3D scenes over band-limited channels”
- 2006-2007 National project (PRIN) “3SHIRT : Three-Dimensional Shape Indexing and Retrieval Techniques”
- 2003-2004 European project “VITRA : Development of an application for the remote visualization of panoramic images”

Editorial activities and Program Committees

- Guest editor of the special issue “3D Imaging Techniques and Multimedia Applications” of the IEEE MultiMedia magazine
- Guest editor of the special issue “Advances in 3DTV: Theory and Practice” of the International Journal of Digital Multimedia Broadcasting
- Member of the Technical Program Committee: International Conference on Multimedia & Expo (ICME 2012, 2013, 2014, 2015, 2016, 2017, 2018), International Conference on Image Processing (ICIP 2015, 2016, 2017, 2018), Picture Coding Symposium (PCS 2015), Eusipco (2018), ChaLearn Looking at People ICCV Workshop (2015), Workshop on multiMedia Applications over Wireless Networks (MediaWiN 2008 and 2011), 5th International Symposium on Visual Computing (ISVC 2009), Workshop on Hot Topics in 3D Multimedia (Hot3D 2014), International Workshop on Assistive Computer Vision and Robotics (2018)
- Reviewer for IEEE Transaction on Multimedia, IEEE Transaction on Circuit and Systems for Video Technology, IEEE Transaction on Parallel and Distributed Systems, IEEE Journal of Selected Topic in Signal Processing, IEEE Signal Processing Letters, Elsevier Signal Processing: Image Communication, Elsevier Journal of Visual Communication and Image Representation, Eurasip Journal of Image and Video Processing, Journal of Real-Time Image Processing, Multimedia Tools And Applications, Pattern Recognition Letters, IEEE Communications Magazine, Journal of Cultural Heritage, International Journal of Digital multimedia broadcasting, Journal of Electronic Imaging (JEI), MDPI Sensors and Annals of Telecommunications

Awards and Acknowledgemnts

- "Abilitazione Scientifca Nazionale" for the associate professor position in the Telecommunications (09-F2) field (2017-2023)
- "Abilitazione Scientifca Nazionale" for the associate professor position in the Computer Science (01-B1) field (2017-2023).
- Best Paper Award: E. Menegatti, M. Danieletto, M. Mina, A. Pretto, A. Bardella, S. Zanconato, P. Zanuttigh, A. Zanella, "Autonomous discovery, localization and recognition of smart objects through WSN and image features", IEEE SaCoNAS Workshop, 2010
- Top 10% Paper Award: E. Cappelletto, P. Zanuttigh, G.M. Cortelazzo, "Handheld scanning with 3D cameras", IEEE International Workshop on Multimedia Signal Processing (MMSP), 2013
- Best Paper Award: C. Dal Mutto, F. Dominio, P. Zanuttigh, G.M.Cortelazzo, "Hand Gesture Recognition for 3D Interfaces", STDay, 2011
- Best Paper Award: C. Dal Mutto, P. Zanuttigh, G.M. Cortelazzo, "Accurate 3D Reconstruction by Stereo and ToF Data Fusion". GTTI Meeting, 2010
- Best Demo Award: Ludovico Minto, Alvisse Memo, Pietro Zanuttigh, “Exploiting Silhouette Descriptors and Synthetic Data for Hand Gesture Recognition”, GTTI-MMSP Meeting, 2016
- IEEE Member since 2006

Patents

- “Method and apparatus for coding of spatial data”, PCT Application PCT/AU2013/000359, Application Date: April 5, 2013, Publication Date: October 10, 2013. Inventors R. Mathew, P. Zanuttigh, D.S. Taubman
- “Metodo e dispositivo di elaborazione dati per la rappresentazione interattiva ad immagini di oggetti e luoghi su terminali mobili e fissi” (“Method and data elaboration device for the image-based interactive representation of object and places on mobile and desktop devices”), Italian patent MI2004A000454, Inventors: F. Aru, P. Zanuttigh, G.M. Cortelazzo

Publications

Books

1. P. Zanuttigh, G. Marin, C. Dal Mutto, F. Dominio, Ludovico Minto, Guido M. Cortelazzo, "Time-of-Flight and Structured Light Depth Cameras", Springer International Publishing, 355 p., ISBN 978-3-319-30971-2, June 2016
2. C. Dal Mutto, P. Zanuttigh, G.M. Cortelazzo, "Time-of-Flight Cameras and Microsoft Kinect™", SpringerBriefs in Electrical and Computer Engineering, 108 p., ISBN 978-1-4614-3806-9, March 2012.

Journal papers

3. G. Pagnutti, P. Zanuttigh, "Joint segmentation of color and depth data based on splitting and merging driven by surface fitting", *Image and Vision Computing*, vol. 70 pp 21-31, 2018
4. X. Hu, L. Sundqvist Okvist, E. Astrom, F. Forsberg, P. Checchia, G. Bonomi, I. Calliari, P. Calvini, A. Donzella, E. Faraci, F. Gonella, J. Klinger, D. Pagano, A. Rigoni, P. Zanuttigh, P. Ronchese, M. Urbani, S. Vanini, A. Zenoni and Gianni Zumerle, "Exploring the Capability of Muon Scattering Tomography for Imaging the Components in the Blast Furnace", *ISIJ International*. 2018
5. A. Memo, P. Zanuttigh, "Head-mounted gesture controlled interface for human-computer interaction", *Multimedia Tools and Applications*, 2018
6. G. Pagnutti, Ludovico Minto, P. Zanuttigh, "Segmentation and semantic labelling of RGBD data with convolutional neural networks and surface fitting", *IET Computer Vision*, 2017
7. G. Marin, F. Dominio, P. Zanuttigh, "Hand gesture recognition with jointly calibrated Leap Motion and depth sensor", *Multimedia Tools and Applications*, Volume 75, Issue 22, pp 14991-15015, November 2016

8. E. Cappelletto, P. Zanuttigh, G. M. Cortelazzo, "3D Scanning of Cultural Heritage with Consumer Depth Cameras", *Multimedia Tools and Applications*, Volume 75, Issue 7, pp 3631-3654, April 2016
9. C. Dal Mutto, P. Zanuttigh, G.M. Cortelazzo, "Probabilistic ToF and Stereo Data Fusion Based on Mixed Pixels Measurement Models", *IEEE Transaction on Pattern Analysis and Machine Intelligence*, 2015
10. G. Marin, F. Dominio, P. Zanuttigh, "Hand Gesture Recognition with Jointly Calibrated Leap Motion and Depth Sensor", *Multimedia Tools and Applications*, 2015
11. E. Cappelletto, P. Zanuttigh, G. M. Cortelazzo, "3D Scanning of Cultural Heritage with Consumer Depth Cameras", *Multimedia Tools and Applications*, 2014
12. F. Dominio, M. Donadeo, P. Zanuttigh, "Combining multiple depth-based descriptors for hand gesture recognition", *Pattern Recognition Letters*, vol. 50, pp. 101-111, 2014
13. Furlan, M.; Rigoni, A; Vanini, S.; Zumerle, G.; Checchia, P.; Cossutta, L.; Bettella, G.; Zanuttigh, P.; Calvini, P.; Dassa, L.; Donzella, A; Bonomi, G.; Zenoni, A, "Application of Muon Tomography to Detect Radioactive Sources Hidden in Scrap Metal Containers," *IEEE Transactions on Nuclear Science*, vol.61, no.4, pp.2204-2209, 2014
14. L. Nanni, A. Lumini, F. Dominio, M. Donadeo and P. Zanuttigh, "Ensemble to improve gesture recognition", to appear on *International Journal of Automated Identification Technology*, 2014
15. L. Nanni, A. Lumini, F. Dominio and P. Zanuttigh, "Effective and precise face detection based on color and depth data", *Applied Computing and Informatics*, vol. 10, Issues 1-2, pp 1-13, 2014
16. G. Bonomi, D. Cambiaghi, L. Dassa, A. Donzella, M. Subieta, V. Villa, A. Zenoni, M. Furlan, A. Rigoni Garola, S. Vanini, G. Viesti, G. Zumerle, M. Benettoni, P. Checchia, F. Gonella, M. Pegoraro, P. Zanuttigh, G. Calvagno, P. Calvini, S. Squarcia, "Muon tomography as a tool to detect radioactive source shielding in scrap metal containers", *International Journal of Modern Physics*, 2014
17. M. Benettoni, G. Bettella, G. Bonomi, G. Calvagno, P. Calvini, P. Checchia, G. Cortelazzo, L. Cossutta, A. Donzella, M. Furlan, F. Gonella, M. Pegoraro, A. R. Garola, P. Ronchese, S. Squarcia, M. Subieta, S. Vanini, G. Viesti, P. Zanuttigh, A. Zenoni, G. Zumerle, "Noise reduction in muon tomography for detecting high density objects", *Journal of Instrumentation*, 2013
18. V. Garro, C. Dal Mutto, P. Zanuttigh, G.M. Cortelazzo, "Edge-preserving interpolation of depth data exploiting color information", *Annals of telecommunications*, Springer Paris, pp 1-17, August 2013.
19. R. Bajcsy, R. Yang, P. Zanuttigh, C. Zhang, "3D Imaging Techniques and Multimedia Applications", *IEEE MultiMedia*, Vol. 20 , n. 1, pp 14 - 16, 2013.
20. G. Pasqualotto, P. Zanuttigh, G.M. Cortelazzo, "Combining color and shape descriptors for 3D model retrieval", *Signal Processing: Image Communication*, Volume 28, Issue 6, , Pages 608-623, July 2013.

21. R. Mathew, D. Taubman, P. Zanuttigh, "Scalable Coding of Depth Maps with R-D Optimized Embedding", *IEEE Transaction on Image Processing*, Vol. 22 , n. 5, pp 1982 - 1995, 2013.
22. C. Dal. Mutto, P. Zanuttigh, G.M. Cortelazzo, "Fusion of Geometry and Color Information for Scene Segmentation," *IEEE Journal of Selected Topics in Signal Processing*, vol.6, no.5, pp.505-521, Sept. 2012.
23. A. Bardella, M. Danieleto, E. Menegatti, A. Zanella, A. Pretto, P. Zanuttigh, "Autonomous robot exploration in smart environments exploiting wireless sensors and visual features" *Annals of telecommunications*, Vol. 67, No 7-8, July-August 2012.
24. Pietro Zanuttigh, Simone Milani, Guido M. Cortelazzo, "Depth and multi-view image and video coding: algorithms and quality issues beyond the ones of standard image and video compression", *IEEE Multimedia Communications Technical Committee E-Letter*, p. 9- 13, vol. 6, n. 11, November 2011.
25. M. Zamarin, S. Milani, P. Zanuttigh, G.M. Cortelazzo, "A Novel Multi-View Image Coding Scheme based on View-Warping and 3D-DCT", *Journal of Visual Communication and Image Representation*, Special Issue on "Multi-Camera Imaging, Coding and Innovative Display: Techniques and Systems", vol. 21, p. 462-473, July-August 2010.
26. P. Zanuttigh, A. Zanella, F. Maguolo, G.M. Cortelazzo, "Transmission of 3D scenes over lossy channels", *International Journal of Digital Multimedia Broadcasting*, Special Issue on "Advances in 3DTV: Theory and Practice", Volume 2010, March 2010.
27. Zabulis X., Cheng I., Grammalidis N., Triantafyllidis G.A., Zanuttigh P., "Advances in 3DTV: Theory and Practice", *International Journal Of Digital Multimedia Broadcasting*, Special Issue on "Advances in 3DTV: Theory and Practice", Volume 2010, March 2010.
28. P. Zanuttigh, N. Brusco, D. Taubman, G.M. Cortelazzo, "A Novel Framework for the Interactive Transmission of 3D Scenes", *Signal Processing: Image Communication*, 21(9):787-811, October 2006.

Book chapters

29. Loris Nanni, Alessandra Lumini, Ludovico Minto, Pietro Zanuttigh, "Face detection coupling texture, color and depth data", *Advances in Face Detection and Facial Image Analysis*, Springer, 2016
30. L. Nanni, A. Lumini, F. Dominio, M. Donadeo and P. Zanuttigh, "Combination of Depth and Texture Descriptors for Gesture Recognition", in *Advances in Machine Learning Research*, Nova Science Publishers, 2014
31. Fabio Dominio, Giulio Marin, Mauro Piazza, Pietro Zanuttigh, "Feature Descriptors for Depth-Based Hand Gesture Recognition", In *"Computer Vision and Machine Learning with RGB-D Sensors"*, pp 215-23, Springer International Publishing, 2014

32. C. Dal. Mutto, P. Zanuttigh, G.M. Cortelazzo, "ToF cameras and stereo systems: comparison and data fusion", In "TOF Range-Imaging Cameras", F. Remondino and D. Stoppa (Eds.), pp. 177-202, Springer Berlin Heidelberg, 2013.
33. C. Dal Mutto, F. Dominio, P. Zanuttigh and S. Mattoccia, "Stereo Vision and Scene Segmentation", in "Current Advancements in Stereo Vision ", Editor A. Bhatti, INTECH, 2012.
34. G. M. Cortelazzo, F. Aru, P. Zanuttigh, "Visualization of panoramic images over the internet," in Digital Heritage (L. W. MacDonald, ed.), chapter 17, pp. 467–488, Butterworth-Heinemann Ltd ,11 April 2006, ISBN: 978-0750661836.
35. P. Zanuttigh, G. M. Cortelazzo, "Predictive schemes for remote visualization of 3d models," in 3D Online Multimedia: Processing, Transmission and Visualization (A. Basu, I. Cheng, G. M. Cortelazzo e S. K. Tripathi, eds.), Chapter 10, World Scientific Publishing, October 2007.
36. N. Brusco, P. Zanuttigh, D. Taubman, G.M. Cortelazzo, "A rate distortion theoretic approach to remote visualization of 3d models," in 3D Online Multimedia: Processing, Transmission and Visualization (A. Basu, I. Cheng, G. M. Cortelazzo e S. K. Tripathi, eds.), Chapter 11, World Scientific Publishing, October 2007.
37. P. Zanuttigh, G. M. Cortelazzo, L. MacDonald, "3d visualization and progressive compression of photorealistic panoramic backgrounds," in 3D Online Multimedia: Processing, Transmission and Visualization (A. Basu, I. Cheng, G. M. Cortelazzo e S. K. Tripathi, eds.), Chapter 13, World Scientific Publishing, October 2007.

PhD thesis

38. P.Zanuttigh, "A rate-distortion framework for transmission and remote visualization of 3D models". PhD Thesis, Padova, 2007.

Conference Proceedings

39. L. Minto, P. Zanuttigh, G. Pagnutti, "Deep learning for 3D shape classification based on volumetric density and surface approximation clues", International Conference on Computer Vision Theory and Applications (VISAPP), 2018
40. G. Agresti, L. Minto, G. Marin, P. Zanuttigh, "Deep Learning for Confidence Information in Stereo and ToF Data Fusion", ICCV workshop on 3D Reconstruction meets Semantics, 2017

41. P. Zanuttigh, L. Minto, "Deep Learning For 3D Shape Classification from Multiple Depth Maps", IEEE International Conference on Image Processing (ICIP), 2017
42. G. Marin, P. Zanuttigh, S. Mattocchia, "Reliable Fusion of ToF and Stereo Depth Driven by Confidence Measures", European Conference on Computer Vision (ECCV), Amsterdam, The Netherlands, 2016
43. L. Minto, G. Pagnutti, P. Zanuttigh, "Scene Segmentation Driven by Deep Learning and Surface Fitting", ECCV Geometry Meets Deep Learning Workshop, Amsterdam, The Netherlands, 2016
44. G.Pagnutti, P. Zanuttigh, "Joint color and depth segmentation based on region merging and surface fitting", International Conference on Computer Vision Theory and Applications (VISAPP), Rome, Italy, 2016
45. M. Calemme, P. Zanuttigh, S. Milani, M. Cagnazzo, B. Pesquet-Popescu, "Depth Map Coding With Elastic Contours and 3D Surface Prediction", IEEE International Conference on Image Processing (ICIP), 2016
46. G. Pagnutti, P. Zanuttigh, "Scene segmentation based on NURBS surface fitting metrics", Smart Tools and Apps in computer Graphics, Verona, Italy, Oct. 2015
47. A. Memo, L. Minto, P. Zanuttigh, "Exploiting Silhouette Descriptors and Synthetic Data for Hand Gesture Recognition," Smart Tools and Apps in computer Graphics, Verona, Italy, Oct. 2015
48. L. Minto, G. Marin, P. Zanuttigh. "3D Hand Shape Analysis for Palm and Fingers Identification" International Workshop on Understanding Human Activities through 3D Sensors (FG2015 workshop), Ljubljana , Slovenia, May. 2015
49. S. Milani, P. Zanuttigh, "Compression of Photo Collections Using Geometrical Information", IEEE International Conference on Multimedia and Expo, 2015
50. S. Zennaro, M. Munaro, S. Milani, P. Zanuttigh, A. Bernardi, S. Ghidoni, E. Menegatti, "Performance Evaluation of the 1st and 2nd Generation Kinect Devices for Multimedia Applications", IEEE International Conference on Multimedia and Expo, 2015
51. G. Marin, F. Dominio, P. Zanuttigh, "Hand gesture recognition with Leap Motion and Kinect devices," IEEE International Conference on Image Processing (ICIP), pp.1565-1569, Paris, France, Oct. 2014
52. G.Pagnutti, P. Zanuttigh, "Scene segmentation from depth and color data driven by surface fitting," IEEE International Conference on Image Processing (ICIP) , pp.4407-4411, Paris, France, Oct. 2014
53. G. Pozzato, S. Michieletto, E. Menegatti, F. Dominio, G. Marin, L. Minto, S. Milani, P. Zanuttigh, "Human-Robot Interaction with Depth-Based Gesture Recognition", Real Time Gesture Recognition for Human-Robot Interaction Workshop, 2014
54. Matteo Furlan, Andrea Rigoni, Sara Vanini, Gianni Zumerle, Paolo Checchia, Ludovico Cossutta, Giacomo Bettella, Pietro Zanuttigh, Piero Calvini, Luca Dassa, Antonietta

- Donzella, Germano Bonomi, Aldo Zenoni, "Application of muon tomography to detect radioactive sources hidden in scrap metal containers", 3rd International Conference on Advancements in Nuclear Instrumentation, Measurement Methods and their Applications (ANIMMA), 2013
55. M. Furlan, A. Rigoni, S. Vanini, G. Viesti, G. Zumerle, G. Bonomi, D. Cambiaghi, L. Dassa, A. Donzella, M. Subieta, V. Villa, A. Zenoni, P. Calvini, S. Squarcia, M. Benettoni, P. Checchia, F. Gonella, M. Pegoraro, P. Zanuttigh, G. Calvagno, "Muons scanner to detect radioactive source hidden in scrap metal containers: Mu-steel EU project", 2013 IEEE International Conference on Technologies for Homeland Security (HST), 2013
 56. E. Cappelletto, P. Zanuttigh, G.M. Cortelazzo, "Handheld scanning with 3D cameras", Proceedings of MMSP 2013, Pula, Italy, 2013 (*Top 10% Paper Award*).
 57. G. Marin, M. Fraccaro, M. Donadeo, F. Dominio, P. Zanuttigh, "Palm area detection for reliable hand gesture recognition", Proceedings of MMSP 2013, Pula, Italy, 2013.
 58. F. Dominio, M. Donadeo, G. Marin, P. Zanuttigh, G.M. Cortelazzo, "Hand Gesture Recognition with Depth Data", ACM Multimedia Artemis Workshop, 2013.
 59. A. Albarelli, A. Torsello, M. Favaro, P. Zanuttigh, "Pairwise Similarities for Scene Segmentation Combining Color and Depth Data", Proc. of ICPR 2012, Tsukuba, Japan, November 2012.
 60. E. Cappelletto, P. Zanuttigh, G.M. Cortelazzo, "Handheld scanning with ToF sensors and cameras", STDay 2012, Milan, Italy, October 2012.
 61. C. Dal Mutto, P. Zanuttigh, S. Mattoccia, G.M. Cortelazzo, "Locally Consistent ToF and Stereo Data Fusion", ECCV 2012 Workshop on Consumer Depth Cameras for Computer Vision (CDC4CV), Florence, Italy, October 2012.
 62. R. Mathew, P. Zanuttigh, D. Taubman, "Scalable Depth Maps With R-D Optimized Embedding", Proc. of MMSP 2012, Banff, Canada, September 2012.
 63. R. Mathew, P. Zanuttigh, D. Taubman, "Highly Scalable Coding of Depth Maps with Arc Breakpoints," Data Compression Conference (DCC) 2012, pp.42-51, 10-12 April 2012.
 64. C. Dal Mutto; S. Mattoccia, P. Zanuttigh, G.M. Cortelazzo, "Scene Segmentation Assisted by Stereo Vision", Proceedings of 3DIMPVT 2011, p. 57- 64, Hangzhou, China, May 2011.
 65. S. Milani, P. Zanuttigh, M. Zamarin, S. Forchhammer, "Efficient depth map compression exploiting segmented color data", IEEE International Conference on Multimedia and Expo (ICME), Barcelona, Spain, July 2011.
 66. C. Dal Mutto, F. Dominio, P. Zanuttigh, G.M. Cortelazzo, "Hand Gesture Recognition for 3D Interfaces", Proc. of STDay 2011, Turin, Italy, September 2011 (*Best Paper Award*).
 67. L. Bezze, C. Dal Mutto, P. Zanuttigh, F. Dominio, G.M. Cortelazzo, "ToF Cameras and Microsoft Kinect Depth Sensor for Natural Gesture Interfaces", Proc. of CHIItaly; Alghero, Italy, September 2011.

68. E. Menegatti, M. Danieleto, M. Mina, A. Pretto, A. Bardella, S. Zanconato, P. Zanuttigh, A. Zanella, "Autonomous discovery, localization and recognition of smart objects through WSN and image features", IEEE International Workshop Towards SmArt COmmunications and Network technologies applied on Autonomous Systems (SaCoNAS 2010), Miami, USA, December 2010 (*Best Paper Award*).
69. E. Menegatti M. Danieleto, M. Mina, A. Pretto, A. Bardella, A. Zanella, P. Zanuttigh, "Discovery, localization, and recognition of smart objects by a mobile robot", 2nd International Conference on Simulation, Modeling and Programming for Autonomous Robots (SIMPAN 2010), Darmstadt, Germania, November 2010.
70. M. Zamarin, P. Zanuttigh, S. Milani, G.M. Cortelazzo, S. Forchhammer, "A Joint Multi-View Plus Depth Image Coding Scheme Based on 3D-Warping", ACM International Workshop on 3D Video Processing (3DVP2010), Firenze, Italy, October 2010.
71. C. Dal Mutto, P. Zanuttigh, G.M. Cortelazzo, "Scene Segmentation by Color and Depth Information and its Applications", Proceedings of Streaming Day 2010. Udine, Italy, September 2010.
72. C. Dal Mutto, P. Zanuttigh, G.M. Cortelazzo, "Accurate 3D Reconstruction by Stereo and ToF Data Fusion". Proceedings of GTTI Meeting 2010, Brescia, Italy, June 2010 (*Best Paper Award*).
73. C. Dal Mutto, P. Zanuttigh, G.M. Cortelazzo, "A Probabilistic Approach to ToF and Stereo Data Fusion", In Proceedings of 3DPVT 2010, Paris, France, May 2010.
74. V. Garro, C. Dal Mutto, P. Zanuttigh, G.M. Cortelazzo, "A Novel Interpolation Scheme for Range Data with Side Information", European conference on visual media production (CVMP), November 2009.
75. M. Danieleto, M. Mina, A. Zanella, P. Zanuttigh, E. Menegatti, "Recognition of smart objects by a mobile robot using SIFT-based image recognition and wireless communication" In Proceedings of the European Conference on Mobile Robots - ECMR 2009, Mlini/Dubrovnik, Croatia , September, 2009.
76. C. Dal Mutto, V. Garro, P. Zanuttigh, G.M. Cortelazzo, "Combined use of ToF sensors and standard cameras for 3D video acquisition". In STreaming Day 2009. Genova, September 2009.
77. V. Garro, P. Zanuttigh, G.M. Cortelazzo, "A New Super Resolution Technique for Range Data". In Proceedings GTTI 2009. Parma, June 2009.
78. P. Zanuttigh, G.M. Cortelazzo, "Compression of depth information for 3D rendering". In Proceedings of 3DTV Conference, 2009. Potsdam (Germany), 4-6 May 2009.
79. U. Castellani, G. M. Cortelazzo, M. Cristani, E. Delponte, A. Fusiello, A. Giachetti, S. Mizzaro, F. Odone, E. Puppo, R. Scateni, P. Zanuttigh. "3-SHIRT: Three-Dimensional Shape Indexing and Retrieval Techniques". In Eurographics Italian Chapter Conference, Salerno, Eurographics Association, p. 113-120, 2008.

80. P. Zanuttigh, A. Zanella, G.M. Cortelazzo, "Analysis of compressed depth and image streaming on unreliable networks". In Proceedings of MediaWin 2008. Marrakech, Morocco, July 2008.
81. P. Zanuttigh, N. Brusco, D. Taubman, G.M. Cortelazzo, "A rate distortion framework for 3D browsing" In Proc. of 3DTV-Conference 2007, Kos Island, Greece, May 2007.
82. P. Zanuttigh, N. Brusco, D. Taubman, G. M. Cortelazzo, "Server policies for interactive transmission of 3d scenes," in Proceedings of 2006 IEEE International Workshop on Multimedia Signal Processing (MMSP06), Victoria, BC, Canada, October 2006, pp. 59–64.
83. N. Brusco, P. Zanuttigh, D. Taubman, G. M. Cortelazzo, "Distortion-sensitive synthesis of texture and geometry in interactive 3d visualization," in Proceedings of Third International Symposium on 3D Data Processing, Visualization and Transmission (3DPVT06), Chapel Hill, U.S., June 2006.
84. P. Zanuttigh, N. Brusco, D. Taubman, G. M. Cortelazzo, "A rate-distortion driven approach to remote visualization of 3d models," in Proceedings of WiRTeP Workshop, Rome, Italy, April 2006.
85. P. Zanuttigh, N. Brusco, D. Taubman, G. M. Cortelazzo, "Greedy non-linear approximation of the plenoptic function for interactive transmission of 3d scenes," in International Conference on Image Processing (ICIP05), Genova, Italy, September 2005.
86. P. Zanuttigh, G. Michieletto, G. M. Cortelazzo, "A predictive compression method for remote visualization of 3d models," in Proceedings of International Workshop Very Low Bit-Rate Video-Coding (VLBV05), Cagliari, Italy, September 2005.
87. N. Orio, P. Zanuttigh, G. M. Cortelazzo, "Content-based retrieval of 3d models based on multiple aspects," in Proceedings of 2004 IEEE International Workshop on Multimedia Signal Processing (MMSP04), Siena, Italy, 2004, pp. 339-342.
88. G. M. Cortelazzo, P. Zanuttigh, "Predictive image compression for interactive remote visualization," in Proceedings of the 3rd International Symposium on Image and Signal Processing and Analysis (ISPA2003), Rome, Italy, 2003, pp. 168–173.