

Curriculum Vitae

Prof. Dr. Ir. Aleksandra Pižurica

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Ghent University

Department Telecommunications and Information Processing

Research group Image Processing and Interpretation

Email: Aleksandra.Pizurica@telin.ugent.be

Web: <http://telin.ugent.be/~sanja>

Tel: +32-9-264.34.15

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1. Personalia

Family name: Pižurica

Maiden name: Femić

Name: Aleksandra

Date of birth: 18. September 1969.

Place of birth: Novi Sad (Yugoslavia, Serbia)

Marital status: married (to Veselin Pižurica in 1996)

Children: 2 daughters (Marija, born in 1998, and Jelena, born in 2004)

Nationality: Belgian

2. Education

- 1987-1990: Gymnasium mathematics, secondary school Jovan Jovanovic Zmaj, Novi Sad (Yugoslavia)
- 1990-1994: Electrical engineering studies, University of Novi Sad (Yugoslavia), Faculty of electrotechnical engineering, direction Telecommunications.
- 1995-1997: Master studies in telecommunications, University of Belgrade (Yugoslavia), faculty of electrotechnical engineering.
- 1998-2002: Doctoral studies, Ghent University (Belgium), Faculty of Engineering.

3. University Degrees

- **Diploma Degree in Electrical Engineering**
 - 23/2/1994, University of Novi Sad (Yugoslavia)
 - Thesis title: Modeling the wavelength dependence of optical gain in monomode laser diode
- **Magister of Science in Telecommunications**
 - 7/11/1997, University of Belgrade (Yugoslavia)
 - Thesis title: Signal transmission in optical systems with polarization shift keying modulation
- **Ph.D. degree in Applied Sciences**
 - 4/6/2002, Ghent University (Belgium)
 - Thesis title: Image denoising using wavelets and spatial context modeling"

4. Languages

- Serbian (Croatian, Bosnian, Montenegrin) - native
- English, Dutch - fluent
- Russian, Slovakian – passive

5. Employment

- Oct. 1994 - Nov. 1997, Teaching and Research Assistant University of Novi Sad (Yugoslavia)
- Nov. 1997 - Oct. 2001, Ph. D. student Ghent University (Belgium)
- Oct. 2001 - June 2002, Scientific collaborator Ghent University
- June 2002 - Oct 2005, Postdoctoral researcher Ghent University
- Oct 2005 – Sep 2011, FWO Postdoctoral researcher Ghent University
- Feb 2009 – Sep 2011, part time Professor at Ghent University Ghent University
- Oct 2011 – now, full-time professor at Ghent University

6. Teaching

- 1994-1997, University of Novi Sad (Yugoslavia) Exercises for the courses:
 - **Optical telecommunications**
 - **Television**
 - **Audiotechnics**
- 2000 - 2008, Ghent University (Belgium) Exercises for the *Image Processing* course
- Nov 2006 - Feb 2007, Digital Image Processing for Engineers (VION-LET; held at BARCO)
- Courses at Ghent University
 - 2010 -now, **Computer Graphics** (course titular)
 - 2011- 2015 , **Knowledge Based Systems and Artificial Intelligence** (course titular)
 - 2015-now, **Artificial Intelligence** (course titular)
- Guest lectures for other courses at Ghent University
 - 2011- now , **Advanced Signal and Image Processing**

7. Academic service

7.1 Editorial board member

- 2012-now, **Associate Editor for IEEE Transactions on Image Processing**
- Lead Guest Editor, EURASIP Journal on Advances in Signal Processing, Special Issue "Advanced Statistical Tools for Enhanced Quality Digital Imaging with Realistic Capture Models, A. Pizurica, J. Portilla, K. Egiazarian and K. Hirakawam Eds., to appear in 2013.

7.2 Organization of scientific workshops

- iTWIST 2014 - International Traveling Workshop for Interacting Sparse Models and Technology, 27-29 Aug 2014, Namur, Belgium. Together with Sandrine Anthoine, Yannick Boursier, Laurent Jacques, Christophe De Vleeschouwer, Pascal Frossard and Pierre Vanderghenst.
- International Workshop on Medical Image Processing, May 28, 2010, Gent, Belgium. Together with Michel Defrise, Johan Nuyts, Wilfried Philips, Jan Sijbers and Stefaan Vandenberghe.
- Sparsity and Modern Mathematical Methods for High Dimensional Data, Apr 6-10, 2010, Brussels, Belgium. Together with Ingrid Daubechies, Christine De Mol, Ignace Loris and Benoit Macq.

- fMRI Symposium, Jan 24, 2006, Jozef Plateauzaal, Faculteit Ingenieurswetenschappen, Universiteit Gent.

7.3 Scientific committee member of international conferences

- **Technical Program Committee Co-Chair**, IEICE Information and Communication Technology Forum **ICTF**, 3-5 June, 2015, Manchester, UK.
- **Technical Program Committee Chair**, IEICE Information and Communication Technology Forum **ICTF**, 28-30 May 2014, Poznan, Poland.
- **International Chair**, IEICE Information and Communication Technology Forum **ICTF**, 29-31 May 2013, Sarajevo, Bosnia.
- **Area Chair for Image Processing**, European Signal Processing Conference **EUSIPCO**, Aug 27-31, Bucharest, Romania.
- **Technical committee member**
 - 2004-now, IEEE Int. Conf. on Image Processing **ICIP**
 - 2004-now, IEEE Int. Conf. on Acoustics, Speech and Signal Processing **ICASSP**
 - 2002-now, Advanced Concepts for Intelligent Vision Systems **ACIVS**
 - Occasionally technical committee for other conferences, including International Symposium on Signal Processing and its Applications (ISSPA) and Digital Signal Processing (DSP)

7.4 Reviewer for international journals

- IEEE Transactions on Image Processing
- IEEE Transactions on Medical Imaging
- IEEE Transactions on Pattern Analysis and Machine Intelligence
- IEEE Transactions on Signal Processing
- IEEE Signal Processing Letters
- IEEE Transactions on Biomedical Engineering
- IEEE Transactions on Circuits and Systems for Video Technology
- IEEE Transactions on Circuits and Systems I
- IEEE Transactions on Multimedia
- Neurocomputing
- Journal of Electronic Imaging
- Signal Image and Video Processing
- Signal Processing
- Information Fusion
- International Journal of Computers and Their Applications
- Integrated Computer-Aided Engineering Journal
- ELSEVIER Journal of Applied Signal Processing
- ELSEVIER Journal of Visual Communication and Image Representation
- IET Electronics Letters

- Microscopy Research and Technique
- IEICE Fundamentals of Electronics, Communications and Computer Sciences
- Inverse Problems and Imaging
- Optical Engineering
- Scientific Reports (Nature Publishing Group)

7.5 Membership in scientific organizations

- Member of IEEE, SPIE and ACM

7.6 Member of PhD juries

1. **Alin Alecu.** Wavelet-based Scalable L-infinity-oriented Coding, Vrije Universiteit Brussel, 2004.
2. **Filip Rooms.** Nonlinear Methods in Image Restoration Applied to Confocal Microscopy, Ghent University, 2005 (member of the reading committee).
3. **Sam Lerouge.** Personalizing Quality Aspects for Video Communication in Constrained Heterogeneous Environments, Ghent University, 2005 (member of the reading committee).
4. **Vladimir Zlokolica.** "Geavanceerde niet-lineaire methodes voor ruisonderdrukking in video", Ghent University, May 2006 (promoter and member of the reading committee).
5. **Alessandro Ledda.** Mathematische morfologie in de beeldverwerking, Ghent University, 2007.
6. **Ewout Vansteenkiste.** Quantitative Analysis of Ultrasound Images of Preterm Brain, Universiteit Gent, 2007 (member of the reading committee).
7. **Valérie De Witte.** Colour Morphology with Application to Image Magnification, Ghent University, 2007.
8. **Jose Antonio Guerrero Colón.** Bayesian methods applied to image restoration in overcomplete pyramids and to digital camera identification, Universidad de Granada, Spain, 2008. (**Jury member for the European Doctorate program**)
9. **Mihajlo Katona.** One approach to selection of an optimal architecture for realization of digital video processing algorithms," University of Novi Sad, Serbia, 2008.
10. **Jurgen De Zaeytijd.** On the 3D electromagnetic quantitative inverse scattering problem: algorithms and regularization Ghent University, Jan 2009 (member of the reading committee).
11. **Hiep Quang Long.** Advanced Image and Video Resolution Enhancement Techniques. Ghent University, March 2009 (member of the reading committee).
12. **Roel Van Holen.** SPECT imaging with rotating slat collimation. Ghent University, 2009 (member of the reading committee).
13. **Ronald Phlypo.** Blind Source Extraction Methods for Bio-electrical Multi Sensor Signal Processing. Ghent University, 2009 (member of the reading committee).
14. **Sara Van den Bulcke.** A 2.5D Electromagnetic Quantitative Inverse Scattering Technique to Visualize Concealed Objects Using Millimeter Waves. Ghent University, March 2010 (member of the reading committee).
15. **Bart Goossens.** Multiresolution Image Models and Estimation Techniques. Ghent University, May 2010 (promoter and member of the reading committee).

16. **Stijn Notebaert**. Bit Rate Transcoding of H.264/AVC Based on Rate Shaping and Requantization. Ghent University, June 2010 (member of the reading committee).
17. **Joost Rombaut**. Reconstruction of Wavelet Coded Video in Lossy Packet Networks. Ghent University, June 2010 (promoter and member of the reading committee).
18. **Sarah De Bruyne**. Compressed-Domain Spatio-Temporal Segmentation of H.264/AVC Video Streams. Ghent University, Nov 2010 (member of the reading committee).
19. **Steven Verstockt**. Multi-modal Video Analysis for Early Fire Detection. Ghent University, Dec 2011 (member of the reading committee).
20. **Ljubomir Jovanov**. Noise Reduction in 3D Video with Time-of-Flight Cameras. Ghent University, 2011 (promoter and member of the reading committee).
21. **Wenzhi Liao**. Dimension reduction in hyperspectral imaging. Joint PhD: South China University of Technology, SCUT, Guangzhou, China and Ghent University, May 2012 (promoter and member of the reading committee).
22. **Elena Matei**. Hardware Accelerated H.264 Blocks for Processing Multiple High Definition Streams in Real-Time: Novel Architecture and Realization on FPGA Platform. Ghent University, 2012 (member of the reading committee).
23. **Jerome Plumet**. Classification and Reconstruction using Markov Random Field Modeling with applications to Image Processing. Université catholique de Louvain, Dec 2012.
24. **Sergio Alejandro Orjuela Vargas**. Texture Analysis for the Evaluation of Appearance Changes in Textile Surfaces. Ghent University, Feb 2013 (member of the reading committee).
25. **Martin Fiers**. Nanophotonic Reservoir Computing Using Photonic Crystal Cavities. Ghent University, June 2013 (member of the reading committee).
26. **Sebastiaan Van Leuven**. Low-Complexity Scalable and Multiview Video Coding. Low-Complexity Scalable and Multiview Video Coding. Ghent University, July 2013 (member of the reading committee).
27. **Frederik Verbist**. Advanced Hash-based Distributed Video Coding. Vrije Universiteit Brussel, July 2013.
28. **Danilo Babin**. Segmentation and Skeletonization Techniques for Cardiovascular Image Analysis. Ghent University, October 2013 (promoter and member of the reading committee).
29. **Glenn Van Wallendael**. High Quality Video Distribution Using Video Adaptation for the High Efficiency Video Coding Standard, Nov 2013 (member of the reading committee).
30. **Rita Simoes**, "Towards earlier detection of Alzheimer's disease using Magnetic Resonance Images", promotor: Prof. Kees Slump, University of Twente, Oct 2013.
31. **Tijana Ružić**, Patch-based graphical models for image restoration, Ghent University, March 2014 (promoter and member of the reading committee).
32. **Ljiljana Platiša**, Image Quality Assessment: Utility, Beauty, Appearance, Ghent University, March 2014 (promoter).
33. **Pavlo Molchanov**, "Radar target classification by micro-Doppler contributions", promotor: Prof. Karen Egiazarian, University of Tampere, Finland, June 2014.
34. **Funing Bai**: Spatial Priors for Tomographic Reconstructions from Limited Data, Ghent University, August 2014 (promoter and member of the reading committee).

35. **Jan Aelterman**: Multiresolution models in image restoration and reconstruction with medical and other applications, Ghent University, September 2014 (promoter and member of the reading committee).
36. **Vedran Jelaca**: Robust-time tracking in smart camera networks, Ghent University, September 2014 (member of the reading committee).
37. **Zafer Dogan**, "Non-linear Recovery of Sparse Signal Representations with Applications to Temporal and Spatial Localization", promoters: Prof. Dimitri Van De Ville en Prof. Thierry Blu, EPFL, Switzerland, March 2015.
38. **Luis Gonzalez Jaime**, Blind Restoration of Images with Penalty-Based Decision Making. A Consensus Approach, Ghent University, September 2014 (member of the reading committee).
39. **Tim Bruylants**, "Advanced Coding Technologies for Medical and Holographic Imaging - Algorithms, Implementations and Standardisation", promoters: Prof. Peter Schelkens en Prof. Adrian Munteanu, VUB, September 2015.

8. Awards

Scientific prize "**de Boelpaepe**" for 2013-2014, awarded by the Royal Belgian Academy of Sciences and the Arts (*Académie royale des sciences, des lettres et des beaux-arts de Belgique*) for the contributions to **statistical image modeling with applications to analysis of digitized works of art**.

The "**Best Paper Challenge**" award of the 2014 IEEE Geoscience and Remote Sensing Society (GRSS) Data Fusion Contest for the paper:

W. Liao, F. Van Coillie, S. Gautama, A. Pizurica, and W. Philips. "Fusion of thermal infrared hyperspectral and VIS RGB data using guided filtering and supervised fusion graph".

The "**Best Paper Challenge**" award of the 2013 IEEE Geoscience and Remote Sensing Society (GRSS) Data Fusion Contest for the paper:

W. Liao, R. Bellens, S. Gautama, A. Pizurica, and W. Philips. "Graph-based feature fusion of hyperspectral and LiDAR remote sensing data using morphological features"..

9. Selected research projects

1. 1/1/2004-31/12/2007, FWO research project Analysis and Segmentation of Multispectral Images applied to Remote Sensing. Promoters: W. Philips, P. Scheunders, S. Gautama, A. Pižurica. Budget: 230 000 EUR (UGent-IPI part).
2. 1/10/2005-30/9/2008, FWO postdoctoral mandate. A. Pizurica: Hierarchical statistical image modeling with applications to image and video restoration and coding.
3. 1/1/2006-31/12/2009, FWO research project: Adaptieve en schaalbare gezamenlijke codering en restauratie van video. Promoters: W. Philips, E. Kerre, P. Schelkens (VUB), A. Pižurica, A. Munteanu (VUB) and M. Nachtegael. Budget: 0.5 staff member.
4. 1/10/2006-30/9/2010, BOF doctoral mandate Bart Goossens: Geavanceerde multiresolutietechnieken voor het modelleren van videosequenties. Promoters: W. Philips en A. Pižurica.

5. 1/10/2006-30/9/2010, BOF doctoral mandate Nikzad Babaii Rizvandi: Video analysis of moving objects for mass screening in biotechnology. Promoters: W. Philips en A. Pižurica.
6. 1/1/2008-31/12/2011, FWO research project: Spatial classification of multi-component remote sensing images. Promoters: P. Scheunders, (UA/VisieLab), W. Philips en A. Pižurica. Budget: 250 000 EUR (IPI deel).
7. 1/5/2008-30/4/2010, (*research leader*) IBBT research project: Video Content Analysis for Automated Traffic Surveillance – VICATS. Ugent/HOGent promotors: A. Pižurica, W. Philips, P. Veelaert (Hogent). Budget: 340 000 EUR. ((UGent-IPI part).
8. 1/1/2008-31/12/2009, European EUREKA! Project: Video Content Analysis for Automated Traffic Surveillance (E! 4160 Vicats). Academic promotors: V. Crnojevic (University of Novi Sad), A. Pižurica, W. Philips, P. Veelaert (Hogent).
9. 1/10/2008-30/9/2011, Second mandate FWO postdoctoral researcher A. Pižurica.
10. 1/1/2009-31/12/2012 FWO research project: Geavanceerde kwantitatieve tomografische beeldreconstructie. Promoters: W. Philips, J. Cornelis (VUB), A. Franchois, A. Pižurica, D. De Zutter. Budget:140 000 EUR ((UGent-IPI part).
11. 1/1/2010-now IBBT Future Media and Imaging research department. Director: R. Van de Walle. Leaders of research units: A. Munteanu, A. Pižurica, J. Sijbers en S. Staelens.
12. 1/1/2010–30/6/2010 Francqui chair Ingrid Daubechies. Promoters: I. Loris (VUB), C. De Mol (ULB), A. Pižurica (UGent) en B. Macq (UCL). Budget: 47 300 EUR (total).
13. 1/1/2011-31/1/2014 IWT-SBO project: Chameleon: Domain-specific Hyperspectral Imaging Systems for Relevant Industrial Applications. Promoters: R. Lauwereins, F. Pessolano, P. Scheunders, Bart Nicolaï, W. Philips, A. Pižurica, B. Delauré. Budget for UGent-IPI: 449kEUR.
14. 1/1/2011-31/12/2016 BOF-GOA project: Distributed Smart Camera System. Promoters: W. Philips, K. De Bosschere, L. Eeckhout, B. De Sutter, P. Veelaert and A. Pižurica.
15. 1/1/2012-31/12/2015 FWO research project: Sparse representations for restoration and coding of 3D signals – Sparse 3D. Promoters: A. Munteanu (VUB) and A. Pižurica. Budget for UGent-IPI: 1 PhD grant.
16. 1/1/2012-31/12/2013 ICON IBBT project: SuperMRI - Speeded Up Processing and Reconstruction of Magnetic Resonance Images. Academic Promoters: J. Sijbers (UA-VisionLab); A. Pižurica (UGent-IPI), H. Hallez (UGent-Medisip), M. Verhoye (UA-BIL). Budget for UGent-IPI: 190 450 EUR.
17. 1/6/2013-31/5/2017 BOF-UGent Starting Grant. Statistical modeling of visual patterns with applications to digital painting analysis. Promoter: A. Pižurica. Budget: 1PhD grant.
18. 1/10/2012-1/5/2015 ESA QB50 project CubeSat. MJ – NS1 Standard atmospheric double CubeSat. Coordinator: University of Novi Sad. Role of UGent-IPI: Participant. Budget: launching of the satellite (planned for April 2015).
19. 1/3/2013-28/2/2016 FP7 REGPOT Reinforcement of BioSense Center – ICT for Sustainability and Eco-Innovation – Innosense. Coordinator: University of Novi Sad (Serbia). EU partners: Ghent University, TU Vienna, Ruhr-University Bochum, Agricultural University of Athens, University of Copenhagen, GIS and Remote Sensing Laboratory at Doňana Biological Station. Total budget: 2700000 EUR. Budget for UGent-IPI: two visits of UGent researchers to University of Novi Sad (2 months in total) and a visiting researcher at UGent for 1 year.
20. 1/10/2015 – 31/9/2019 BOF UGent: Clifford algebra methods for efficient multidimensional data analysis. Promoters: Hendrik De Bie en Aleksandra Pizurica (1 PhD grant)

10. Advisor of Doctoral Theses

1. **Vladimir Zlokolica** (defended: May 2006) Advanced non-linear methods for video denoising. Universiteit Gent. Promoters: W. Philips and A. Pižurica.
2. **Bart Goossens** (defended: May 2010). Multiresolution Image Models and Estimation Techniques. May 2010. Universiteit Gent. Promoters: W. Philips and A. Pižurica.
3. **Joost Rombaut** (defended: June 2010). Reconstruction of Wavelet Coded Video in Lossy Packet Networks. Universiteit Gent. Promoters: W. Philips and A. Pižurica.
4. **Ljubomir Jovanov** (defended in June 2011). Noise Reduction in 3D Video with Time-of-Flight Cameras. Promoters: W. Philips and A. Pižurica.
5. **Wenzhi Liao** (defended: May 2012). Dimension reduction in hyperspectral imaging. Promoters: A. Pižurica, W. Philips and Y. Pi.
6. **Danilo Babin** (defended: October 2013). Segmentation and Skeletonization Techniques for Cardiovascular Image Analysis. Promoters: A. Pižurica and W. Philips.
7. **Ljiljana Platiša** (defended: March 2014). Image Quality Assessment: Utility, Beauty, Appearance. Promoters: W. Philips and A. Pižurica.
8. **Tijana Ružić** (defended: March 2014). Patch-based graphical models for image restoration. Promoters: A. Pižurica and W. Philips.
9. **Funing Bai** (defended: August 2014). Spatial Priors for Tomographic Reconstructions from Limited Data. Promoters: A. Pižurica and W. Philips.
10. **Jan Aelterman** (defended: September 2014). Multiresolution models in image restoration and reconstruction with medical and other applications. Promoters: A. Pižurica and W. Philips.
11. **Jorge Niño** (expected to submit: 2016). Object tracking. Promoters: W. Philips and A. Pižurica.
12. **Andrés Frías Velásquez** (expected to submit: 2016). Graphical models in computer vision. Promoters: A. Pižurica and W. Philips.
13. **Aleksandar Latić** (expected to submit: 2016). Sparse representations of multidimensional signals. Promoter: A. Pižurica

11. Invited Talks

1. Patch based digital image processing – Principles and selected applications, IEICE Information and Communication Technology Forum (ICTF), Manchester, UK, 3-5 June, 2015.
2. Visual Pattern Encoding on the Poincare Sphere, **Featured presentation**, UCL-Duke Workshop on Sensing and Analysis of High Dimensional Data, London, UK, September 4-5, 2014.
3. Graphical Models and Message Passing in Sparse Signal Recovery, **Plenary talk**, First Workshop on Optimization for Image and Signal Processing, Paris, France, November 18-20, 2013.
4. Graphical Models and Message Passing for Compressed Sensing. Probability and Statistics Seminar. Laboratoire Paul Painlevé, Université Lille 1, October 2, 2013.
5. Virtual Restoration and Analysis of Digitized Paintings, IEICE International Conference Information and Communication Technology Forum ICTF, 29-31 May 2013, Sarajevo, Bosnia.
6. On local regularity estimation using Average Cone Ratio with applications in signal and image processing. Séminaire Cristolien d'Analyse Multifractale, Centre de Mathématiques, Université de Marne-la-Vallée, Jan 17, 2013, Paris, France
7. Deciphering Lam Gods, **TEDxGent**, June 16, 2012, Ghent, Belgium

8. Advances and Challenges in Image and Video Restoration, South China University of Technology, May 6, 2012, Guangzhou, China.
9. Digitization and Mathematical Analysis of Pearls and Material Representation in "Het Lam Gods". **Het Lam Gods Series of Lectures** organized by the Centre for Studying Christian Traditions, Nov 8, 2011, Ghent, Belgium.
10. Sparse Representations in Image Restoration and Reconstruction, Nov 2, 2011, University of Novi Sad, Serbia.
11. On structured sparsity and selected applications in tomographic imaging. SPIE Conference *Wavelets and Sparsity XIV*, Aug 21-25, 2011, San Diego, CA, USA.
12. Spatial context modeling in multiresolution image denoising. International Symposium *Wavelets in Gembloux* organized by FNRS Contact Group "*Wavelets and Applications*", Dec 4, 2009, Gembloux, Belgium.
13. On spatial priors in multiresolution image denoising: from local spatial activity indicators to MRF and MPGSM models. International Workshop *Approximation and Optimization in Image Restoration and Reconstruction*, June 8-12, 2009, Porquerolles, France.
14. Image and Video Denoising. IBBT Friday Food Invited Talk. Gent, Belgium, Oct 2008.
15. Tutorial: Noise Reduction. IEEE *International Solid State Circuit Conference*, Feb 15, 2007, San Francisco, CA, USA. **Invited Tutorial**. *Imager Design Forum: Noise in Imaging Systems*,
16. Advanced multiresolution techniques for image and video denoising. MEDISIP Seminar, Ghent University, March 27, 2007.
17. Wavelet based image denoising. Université de Bourgogne, Le Creusot, France, January 12, 2006.
18. Wavelet domain denoising of single-band and multi-band images adapted to the probability of the presence of features of interest. SPIE Conference *Wavelets XI*, July 31- Aug 4, 2005, San Diego, California, USA.
19. Wavelet domain image and video denoising and applications in medical imaging. Institute for Mathematics and Computer Science, University of Groningen, The Netherlands, September 19, 2005.
20. Multiscale statistical image models and Bayesian methods. SPIE Conference *Wavelet Applications in Industrial Processing*, Oct 27-31 2003, Providence, Rhode Island, USA.
21. Image and video denoising using wavelets and spatial context modeling. Vision Lab, University of Antwerp, April 2, 2004.
22. Real-time video denoising. University of Novi Sad, Serbia, 2. February 2004.
23. Wavelets in Image Denoising. *Wavelet Seminar*, University of Groningen, The Netherlands, November 17, 2000.

12. Publications

12.1 Theses

1. **A. Pižurica**, *Image Denoising Using Wavelets and Spatial Context Modeling*, PhD thesis, Ghent University, June, 2002.
2. **A. Pižurica**, *Signal transmission in optical systems with polarization shift keying modulation*, M.Sc thesis, University of Belgrade, November 1997.

3. **A. Femić**, *Modeling the wavelength dependence of optical gain in monomode laser diode*, Diploma thesis in Electrical Engineering, University of Novi Sad, February 1994.

12.2 Papers in international journals included in Science Citation Index

1. W. Liao, M. Dalla Mura, J. Chanussot and **A. Pižurica**, "Classification of Hyperspectral Remote Sensed Imagery by Classification of Hyperspectral Remote Sensed Imagery by Local Graph," IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015 (in press).
2. A. Frías-Velázquez, P. Van Hese, **A. Pižurica** and W. Philips, "Split-and-Match: A Bayesian Framework for Vehicle Re-identification in Road Tunnels", Engineering Applications of Artificial Intelligence, 2015 (in press).
3. D. Perrone, J. Aelterman, **A. Pižurica**, B. Jeurissen, W. Philips and A. Leemans, "The effect of Gibbs ringing artifacts on measures derived from diffusion MRI," Neuroimage, 2015 (in press).
4. **A. Pižurica**, L. Platasa, T. Ružic, B. Cornelis, A. Doms, M. Martens, H. Dubois, B. Devolder, M. De Mey and I. Daubechies, "Digital Image Processing of the Ghent Altarpiece", IEEE Signal Processing Magazine, vol. 32, no. 4, pp. 112-122, July 2015.
5. T. Ružić and **A. Pižurica**, "Context-aware patch-based image inpainting using Markov random field modeling," IEEE Transactions on Image Processing, vol. 24, no. 1, pp. 444-456, Jan 2015.
6. W. Liao, X. Huang, F. Vancoillie, S. Gautama, **A. Pižurica**, W. Philips, H. Liu, T. Zhu, M. Shimoni and G. Moser, et al. "Processing of multiresolution thermal hyperspectral and digital color data: outcome of the 2014 IEEE GRSS data fusion contest," IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015 (in press).
7. W. Liao, **A. Pižurica**, R. Bellens, S. Gautama, and W. Philips, "Generalized Graph-Based Fusion of Hyperspectral and LiDAR Data Using Morphological Features", Geoscience and Remote Sensing Letters, vol. 12, no. 3, pp. 552-556, Mar 2015.
8. F. Bai, **A. Pižurica**, B. Truyen, W. Philips, and A. Franchois, "Weakly Convex Discontinuity Adaptive Regularization for 3D Quantitative Microwave Tomography", Inverse Problems, vol. 30, no. 8, pp. 085005:1-28, Aug 2014.
9. J. Aelterman, M. Naeyaert, S. Gutierrez, H. Luong, B. Goossens, **A. Pižurica** and W. Philips, "Automatic high-bandwidth calibration and reconstruction of arbitrarily sampled parallel MRI", PLOS One, Vol. 9, no. 6, pp. e98937:1-16, June 2014.
10. C. Debes, A. Merentitis, R. Heremans, J. Hahn, N. Frangiadakis, T. van Kasteren, W. Liao, R. Bellens, **A. Pižurica**, S. Gautama, W. Philips, S. Prasad, Q. Du, and F. Pacifici, "Hyperspectral and LiDAR Data Fusion: Outcome of the 2013 GRSS Data Fusion Contest", IEEE Journal Of Selected Topics In Applied Earth Observations and Remote Sensing, vol. 7, no. 6, pp. 2405-2418, June 2014.
11. D. Babin, D. Devos, **A. Pižurica**, J. Westenberg, E. Vansteenkiste, and W. Philips, "Robust segmentation methods with an application to aortic pulse wave velocity calculation", Computerized Medical Imaging and Graphics, vol. 38, no. 3, pp. 179-189, 2014.
12. **A. Pižurica**, J. Portilla, K. Hirakawa, and K. Egiazarian, "Advanced statistical tools for enhanced quality digital imaging with realistic capture models", EURASIP Journal on Advances in Signal Processing, 2013, 2013:140.

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(*Femić: maiden name*)

12.8 Patents

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