

CURRICULUM VITAE

HAMID LAGA, PhD

Senior Research Fellow and Deputy Director

Phenomix and Bioinformatics Research Centre

School of Information Technology and Mathematical Sciences

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ACADEMIC QUALIFICATIONS

Formal qualifications

Year	Qualification	University
2003-2006	PhD in Computer Science	Tokyo Institute of Technology, Japan
2001-2003	Masters in Computer Science	Tokyo Institute of Technology, Japan
1992 -1997	Engineer degree in Computer Science	Institut National d'Informatique, Algeria

Other qualifications

Year	Qualification
Sept. 2009	Japanese Language Proficiency Test (JPLT), level 2 (the highest level is level 1, the lowest is level 5)
Apr. 2000 – Sept. 2000	Japanese Language Training, Elementary level.

EMPLOYMENT HISTORY

Feb. 2012 – Present

Senior Research Fellow in 3D Modelling and Deputy Director

Phenomix and Bioinformatics Research Centre.

School of Information Technology and Mathematical Sciences, University of South Australia.

Oct. 2010 – Jan. 2012

Associate Professor in Computer Science and Engineering

Institut Telecom, Telecom Lille 1, France

Oct. 2006 – Sept. 2010

Assistant Professor in Computer Science and Engineering

Global Edge Institute, Tokyo Institute of Technology, Japan.

April 2006 – Sept. 2006

Postdoctoral Fellowship by the Japan Society for the Promotion of Science (JSPS)

Nara Institute of Science and Technology, Japan.

PROFESSIONAL AWARDS AND DISTINCTIONS

1. Nominated best short paper award
IEEE International Symposium on Mixed and Augmented Reality (ISMAR) 2014.
2. Best presentation award by my PhD student (Josh Chopin) at MODSIM2013.
3. Best Paper Prize at the IEEE International Conference on Digital Image Computing: Techniques and Applications

(DICTA), awarded by the International Association of Pattern Recognition (IAPR) and the Australian Pattern Recognition Society (APRS) in 2012.

4. International Paper Grand Prix, Two-years best computer graphics paper award, the Society of Art and Science Japan, March 2008.
5. Best Paper Award at the 23rd NICCOGRAPH Paper Contest, November 2007.
6. Best Paper Award at the IEEE International Conference on Shape Modeling and Applications, June 2006.
7. Japan Society for the Promotion of Science (JSPS) fellowship (April 2006 – Sept. 2006). Initially awarded for two years, but 6 months later I have been promoted to Assistant Professor.

RESEARCH GRANTS

A total of AU\$1,656,000 of research income since obtaining my PhD (March 2006).

Category 1 research grants

1. ARC Linkage Grant LP150100055
Co-variant Analysis and Statistical Modelling for Improved Crop Yield.
Australian Research Council (ARC) Linkage Grant.
SJ Miklavcic, [Hamid Laga](#), Jinhai Cai, Haydn Kuchel.
AU\$695,000 (including 300,000 contribution from the industrial partner), July 2015 – June 2018.
2. ARC Linkage Grant LP140100347
Field and quasi-field phenotyping for the quantitative characterisation of wheat yield under stress.
Australian Research Council (ARC) Linkage Grant.
SJ Miklavcic, P Langridge, J Cai, [Hamid Laga](#), A Jacobs, S Haeefe, RA Burton, BL Duggan, JL Rosichan.
AU\$400,000, July 2015 – June 2018.

Category 3 research grants

1. DOW AgroSciences
SJ Miklavcic, J. Cai, [Hamid Laga](#)
AU\$400,000, July 2015 – June 2018.

Other significant competitive external grants (4)

1. Data Mining System for Knowledge Extraction from 3D Databases
Japan Society for the Promotion of Science (JSPS), Grant in Aid for Scientific Research
CIs: [Hamid Laga](#) (Lead CI).
JPY 1,200,000 = AU\$12,000, April 2006 - September 2006
2. People Detection and Tracking using Networks of Sparsely Distributed Cameras.
Center of Excellence *Ubiquitous Networked Media Computing*, Nara Institute of Science & Technology, Japan
Sofiane Yous, Abdel-Aziz Khat, [Hamid Laga](#).
JPY3,000,000 = AU\$30,000, October 2006 - December 2006
3. 3D Shape Analysis, Classification, Recognition and Retrieval
Global Edge Institute's startup fund, Japan Science and Technology Agency (JST).
CIs: [Hamid Laga](#) (Lead CI).
JPY12,000,000 = AU\$120,000, October 2006 - September 2008.
4. Example-based 3D scene reconstruction and completion
Japan Society for the Promotion of Science (JSPS), Kakenhi Wakate-B No. 21700096
CIs: [Hamid Laga](#) (Lead CI)
JPY3,560,000 = AU\$35,000, April 2009 – March 2012.

Internal grants (2)

1. Automated Classification of Sedentary Behaviours for Life-Style Monitoring.
UniSA's Research Themes Investment Schemes.
Hamid Laga (Lead CI), Jinhai Cai, Francois Fraysse, Tina Hurst, Stanley J. Miklavcic, Tomothy Olds, Alex Rowlands.
AU\$35,000, July 2015 – June 2016.
2. Dynamic 3D Acquisition, Modelling, and Growth Analysis of Cereal Plants
Divisional Research Funding Scheme- Early Career and New Appointee Researcher Development.
University of South Australia
Hamid Laga
AU\$4,000, 2012-2013

SELECTED CAREER-BEST PUBLICATIONS

1. Hamid Laga, Hiroki Takahashi and Masayuki Nakajima. Spherical Wavelet Descriptors for Content-based 3D Model Retrieval. IEEE International Conference on Shape Modeling, pp. 75-85, 2006. (Google Scholar Citations 87).
This paper received two awards: the Best Paper Award at the IEEE International Conference on Shape Modeling and Applications 2006 and the International Paper Grand Prix, Best Paper Award, the Society of Art and Science Japan (March 2008). An extended version of this paper has been also published in as a journal article.
2. Hamid Laga, Michela Mortara, and Michela Spagnuolo. Geometry and Context for Semantic Correspondences and Functionality Recognition in Manmade 3D Shapes. ACM Transactions on Graphics (presented at Siggraph 2014), 32(5), article 150, 2013. (ARC ERA A*, IF 3.65, Google Scholar Citations 24).
We explore and model mathematically for the first time the contextual relations between shape parts and use them to solve the problems of semantic correspondences and functionality recognition in 3D shapes.
3. Ulrich Eck, Frieder Pankratz, Gudrun Klinker, Chris Sandor, Hamid Laga. Comprehensive Workspace Calibration for Visuo-Haptic Augmented Reality. IEEE transactions on Visualization and Computer Graphics (TVCG) 2015 (ARC ERA A, IF 1.9).
4. Hamid Laga, Sebastian Kurtek, Anuj Srivastava and Stanley J. Miklavcic. Landmark-free Statistical Analysis of the Shape of Plant Leaves. Journal of Theoretical Biology. Volume 363, pp. 41-52, 2014. (ARC ERA A*, IF2.3, Google Scholar Citations 8).
The early conference version of this article received the Best Paper Prize from the International Association of Pattern Recognition (IAPR) and the Australian Society for Pattern Recognition (ASPR). The conference version of this journal article has already received 14 citations according to Google Scholar.
5. Hedi Tabia and Hamid Laga. Covariance-based Descriptors for efficient 3D shape matching, retrieval and classification. IEEE Transactions on Multimedia (ARC ERA A, Accepted on 2015/7/10).
6. Sebastian Kurtek, Anuj Srivastava, Eric Klassen, and Hamid Laga. Landmark-Guided Elastic Shape Analysis of Spherically-Parameterized Surfaces. Computer Graphics Forum (Eurographics 2013). 32(2), pp. 429-438, 2013. (IF 1.595, Google Scholar Citations 19).
This paper introduces a new framework for joint registration and geodesic computation of 3D surfaces that undergo elastic deformations, and for averaging surfaces with spherical topology.
7. Hedi Tabia, Hamid Laga, David Picard, and Philippe-Henry Gosselin. Covariance Descriptors for 3D Shape Matching and Retrieval. IEEE International Conference on Computer Vision and Pattern Recognition (CVPR), 2014. (ERA A conference, Acceptance rate 2.5%, Google Scholar Citations 15).
The paper proposes covariance matrices of features for 3D shape analysis. This allows combining, in a natural way, heterogeneous features, including spatial and structural ones. It outperformed the state of the art in 3D shape classification, 3D face recognition and partial 3D shape retrieval.

- Anatoli Torokhti, Phil Howlett and [Hamid Laga](#). Estimation of stochastic signals under partially missing information. *Signal Processing Journal*, Elsevier. Vol. 111, pp. 199-209, 2015 (ARC ERA A, IF 2.238).

A state-of-the-art piecewise linear interpolation filter is developed to estimate missing signals.

- Vy Nguyen, Delphine Fleury, Andy Timmins, [Hamid Laga](#), Matt Hayden, Diane Mather, Takashi Okada. Addition of rye chromosome 4R to wheat increases anther length and the pollen grain number. *Theoretical and Applied Genetics – International Journal of Plant Breeding and Genetics* (Springer). 128 (5), pp. 953-964. 2015 (ARC ERA A, IF 3.507).

State-of-the-art high throughput image-based phenotyping of pollen grains in cereal plants.

FULL PUBLICATION LIST

Book Chapters (3)

- Sebastian Kurtek, [Hamid Laga](#), and Qian Xie. Elastic Analysis of Boundaries of Planar Objects with Multiple Components and Arbitrary Topologies. *Lecture Notes in Computer Science, Computer Vision ACCV2014, Volume 9004*, pp.424-439, ISBN978-3-319-16807-4, Editors: Daniel Cremers, Ian Reid, Hideo Saito, Min-Hsuan Yang, 2015.
- Sebastian Kurtek, Ian H. Jermyn, Qian Xie, Eric Klassen, [Hamid Laga](#). Elastic Shape Analysis of Surfaces and Images. In *Riemannian Computing and Statistical Inferences in Computer Vision*, Chapter 10. Edited by: Pavan K. Turaga and Anuj Srivastava (accepted on Jan 2015).
- [Hamid Laga](#). 3D Shape Classification and Retrieval Using Heterogenous Features and Supervised Learning. In *Machine Learning*, Chapter 15, pp. 305-324. ISBN 978-953-7619-56-1, Hard cover, 450 pages, Edited by: Abdelhamid Mellouk and Abdennacer Chebira, Publisher: IN-TECH, January 2009.

Refereed Journal Articles conditionally accepted pending minor revisions (1)

- Josh Chopin, [Hamid Laga](#), Stanley J. Miklavcic. Optimal parameter selection for active contour models. *The Computer Journal* (ARC ERA A*, submitted in February 2015).

Accepted and published Refereed Journal Articles (22)

- Ulrich Eck, Frieder Pankratz, Gudrun Klinker, Chris Sandor, [Hamid Laga](#). Comprehensive Workspace Calibration for Visuo-Haptic Augmented Reality. *IEEE transactions on Visualization and Computer Graphics (TVCG) 2015* (ARC ERA A).
- Josh Chopin, [Hamid Laga](#), and Stanley J. Miklavcic. RootAnalyzer: a cross-section image analysis tool for automated characterization of root cells and tissues. *PLOS ONE*, 2015 (ARC ERA A, IF3.5).
- Hedi Tabia and [Hamid Laga](#). Covariance-based Descriptors for efficient 3D shape matching, retrieval and classification. *IEEE Transactions on Multimedia* (ARC ERA A, IF1.9).
- Vy Nguyen, Delphine Fleury, Andy Timmins, [Hamid Laga](#), Matt Hayden, Diane Mather, Takashi Okada. Addition of rye chromosome 4R to wheat increases anther length and the pollen grain number. *Theoretical and Applied Genetics – International Journal of Plant Breeding and Genetics* (Springer). 128 (5), pp. 1-12, 2015 (ARC ERA A, IF3.5).
- Anatoli Torokhti, Phil Howlett and [Hamid Laga](#). Estimation of stochastic signals under partially missing information. *Signal Processing Journal*, Elsevier. Vol. 111, pp. 199-209, 2015 (IF 2.238, ARC ERA A).
- Anatoli Torokhti, Phil Howlett and [Hamid Laga](#). Estimation of large sets of stochastic signals: the case of sparse sampling. In *Sampling Theory in Signal and Image Processing*. Vol 13, Issue 3, 2014.
- [Hamid Laga](#), Sebastian Kurtek, Anuj Srivastava and Stanley J. Miklavcic. Landmark-free Statistical Analysis of the Shape of Plant Leaves. *Journal of Theoretical Biology*. Volume 363, pp. 41-52, 2014. (IF2.3, ARC ERA A*).

15. Sebastian Kurtek, Anuj Srivastava, Eric Klassen, and [Hamid Laga](#). Landmark-Guided Elastic Shape Analysis of Spherically-Parameterized Surfaces. *Computer Graphics Forum (Proceedings of Eurographics 2013)*. 32(2), pp. 429-438, 2013.
14. [Hamid Laga](#), Michela Mortara, and Michela Spagnuolo. Geometry and Context for Semantic Correspondences and Functionality Recognition in Manmade 3D Shapes. *ACM Transactions on Graphics (presented at Siggraph 2014)*, 32(5), article 150, 2013 (IF3.7, ARC ERA A*).
13. Luis R. Sapaico, [Hamid Laga](#), and Masayuki Nakajima. Detection of Tongue Protrusion Gestures from Videos. *IEICE Transactions on Information and Systems*, Vol.E94-D, No.8, pp.1671-1682, 2011.
12. Toshitaka Amaoka, [Hamid Laga](#), and Masayuki Nakajima. Personal Space Modeling for Human-Computer Interaction. In the *International Journal of Entertainment Computing (Elsevier)*, 2(4), pp. 245-261, 2011.
11. [Hamid Laga](#). Data-Driven Approach for Automatic Orientation of 3D Shapes. *The Visual Computer Journal*, Springer, Vol. 27, No. 11, pp. 977-989, 2011.
10. Ning Xie, [Hamid Laga](#), Suguru Saito, and Masayuki Nakajima, "Contour-driven Sumi-e rendering of real photos", *Computer and Graphics, An International Journal of Systems and Applications in Computer Graphics (Elsevier)*, Special Issue of NPAR2010, Vol.35, Issue 1, pp.122-134, 2011.
9. Toshitaka Amaoka, [Hamid Laga](#), S. Saito, and Masayuki Nakajima, "Collective Body: Interactive art using 3D Scanner Technology". *The Journal of the Society for Art and Science*, 8(4), pp.151-159, 2009.
8. [Hamid Laga](#) and Hiroki Takahashi. CUDA (Compute Unified Device Architecture). In the *Journal of the Institute of Image Information and Television Engineers (ITE)*, Vol. 62, No. 4, pp. 64-69, 2009.
7. [Hamid Laga](#) and Hiroki Takahashi, "3D Model Databases and Tools", in the *Journal of the Institute of Image Information and Television Engineers (ITE)*, Vol. 63, No. 2, pp.52-56, 2009 (paper in Japanese).
6. [Hamid Laga](#) and Masayuki Nakajima. Supervised Learning of Salient 2D Views of 3D Models. *The Journal of the Society for Art and Science*, Vol. 7, No.4, pp.124-131, 2008.
5. [Hamid Laga](#), Masayuki Nakajima, Kunihiro Chihara. Discriminative Spherical Wavelet Features for Content-based 3D Model Retrieval. *International Journal on Shape Modeling*, Vol.13, No.1, pp. 51-72, 2007 (**Best Paper Award at IEEE International Conference on Shape Modeling and Applications 2006**).
4. [Hamid Laga](#), Hiroki Takahashi, Masayuki Nakajima. Spherical Parameterization and Geometry Image-based 3D Shape Similarity Estimation. *The Visual Computer Journal*, Vol.22, issue 5, pp. 324 – 331, May 2006.
3. [Hamid Laga](#), Takahashi Hiroki, and Nakajima Masayuki. Scale-Space Processing of Point-Sampled Geometry for Efficient 3D Object Segmentation. *IEICE Transactions on Information and Systems*, E88-D(5), pp. 963-970, 2005.
2. [Hamid Laga](#), Romanos Piperakis, Hiroki Takahashi, Masayuki Nakajima. Radial Basis Function Based Approach for Polygon-free Reconstruction and Representation of 3D Objects from Range Data. *The Journal of the Institute of Image Information and Television Engineers*, 57(11), pp.1526-1533, 2003.
1. Achour Karim; Zenati Nadia, and [Hamid Laga](#). Contribution to Image and Contours Restoration. *Journal of Real-Time Imaging*, Academic Press, Vol. 7, No 4, pp.315-326, August 2001.

Refereed Conference proceedings (44)

44. [Hamid Laga](#), Fahimeh Shahinnia, and Delphine Fleury. Image-based Plant Stomata Phenotyping. In *International Conference on Control, Automation, Robotics and Computer Vision (ICARCV)*, pp. 217-122, 2014.
43. Ulrich Eck, Frieder Pankratz, Gudrun Klinker, Chris Sandor, [Hamid Laga](#). Comprehensive Workspace Calibration for Visuo-Haptic Augmented Reality. In *International Symposium on Mixed and Augmented Reality*, pp. 123 – 128, 2014. (**Nominated for best short paper award**).
42. Hedi Tabia, [Hamid Laga](#), David Picard, and Philippe-Henry Gosselin. Covariance Descriptors for 3D Shape Matching and Retrieval. *IEEE International Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 4185 – 4192, 2014 (CORE/ERA A conference, acceptance rate is 3.5%).
41. Sebastian Kurtek, Mo Shen, and [Hamid Laga](#). Elastic Reflection Symmetry Based Shape Descriptors. *IEEE Winter Conference on Applications of Computer Vision WACV2014*, pp. 293-300, 2014.
40. Ulrich Eck, Christian Sandor and [Hamid Laga](#). Visuo-Haptic Augmented Reality Runtime Environment for Medical Training. *IEEE International Symposium on Mixed and Augmented Reality (ISMAR)*, Doctoral Consortium, pp. 1-4, 2013.
39. Neven A. M. ElSayed, Christian Sandor, [Hamid Laga](#). Visual Analytics in Augmented Reality. *International Symposium on Mixed and Augmented Reality (ISMAR)*, Doctoral Consortium, pp. 1-4, 2013.

38. Hedi Tabia, David Picard, [Hamid Laga](#), Philippe-Henry Gosselin. Fast Approximation of Distance Between Elastic Curves using Kernels. British Machine Vision Conference, pp. 17-24, 2013 (Acceptance rate 30%).
37. [Hamid Laga](#) and Stanley J. Miklavcic. Curve-based Stereo Matching for 3D Modeling of Plants. The International Congress on Modelling and Simulation (MODSIM), pp. 1-7, 2013.
36. Joshua Chopin, Stanley J. Miklavcic, [Hamid Laga](#). Active Contour Models for Automated Plant Phenotypic Analysis. The International Congress on Modelling and Simulation (MODSIM), pp. 1-7, 2013.
35. [Hamid Laga](#), Sebastian Kurtek, Anuj Srivastava, Stanley J. Miklavcic. Statistical Shape Models of Plant Leaves. International Conference on Image Processing (ICIP), pp. 3503-3507, 2013.
34. Hedi Tabia, David Picard, [Hamid Laga](#), Philippe-Henry Gosselin. 3D Shape Similarity Computing Using Vectors of Locally Aggregated Tensors. International Conference on Image Processing (ICIP), pp. 2694 – 2698, 2013.
33. Anatoli Torokhti, Phil Howlett, and [Hamid Laga](#). Estimation of large data sets on the basis of sparse sampling. Proceedings of the 10th International Conference on Sampling Theory and Applications, pp.388-391, 2013.
32. Anatoli Torokhti, Phil Howlett, and [Hamid Laga](#). Filtering of Large Signal Sets: an Almost Blind Case. The Eighth International Multi-Conference on Computing in Global Information Technology ICCGI, pp. 101-105, 2013.
31. Hedi Tabia, David Picard, [Hamid Laga](#), Philippe-Henri Gosselin. Compact Vectors of Locally Aggregated Tensors for 3D Shape Retrieval. Eurographics Workshop on 3D Object Retrieval (3DOR), pp. 17-24, 2013.
30. [Hamid Laga](#). Graspable Parts Recognition in Manmade 3D Shapes. The 11th Asian Conference on Computer Vision ACCV. Lecture Notes in Computer Science, pp. 552-564, 2012 (Acceptance rate 3.5%).
29. [Hamid Laga](#), Sebastian Kurtek, Anuj Srivastava, Mahmood Golzarian, and Stanley J. Miklavcic. A Riemannian Elastic Metric for Shape-based Plant Leaf Classification. IEEE International Conference on Digital Image Computing (DICTA), pp. 1-7, 2012 (BEST PAPER AWARD).
28. Ning Xie, [Hamid Laga](#), and Masayuki Nakajima. A Demo of iR2s Software: Interactive Oriental Ink Painting Tool. In Nicograph International 2010.
27. Junyoung Park, [Hamid Laga](#), and Masayuki Nakajima. Multi-view Shape Reconstruction in CAVE System. In Nicograph International 2010.
26. Ning Xie, [Hamid Laga](#), Suguru Saito, and Masayuki Nakajima. iR2S: Interactive Real Photo to Sumi-e. International symposium on non-photo realistic rendering an animation (NPAR2010), pp.63-70, 2010.
25. [Hamid Laga](#). Semantics-Driven Approach for Automatic Selection of Best Views of 3D Shapes. In the 3rd Eurographics Workshop on 3D Object Retrieval (3DOR'2010), pp.15-22, 2010.
24. Xie Ning, [Hamid Laga](#), Suguru Saito, and Masayuki Nakajima. Contour-driven Brush Stroke Synthesis. ACM Siggraph Asia, Sketches and Applications, pp. 6:1-6:1, 2009.
23. Luis Ricardo Sapaico, [Hamid Laga](#), and Masayuki Nakajima. The Use of Tongue Protrusion Gestures for Video-based Communication. In the IEEE International Workshop on Human-Computer Interaction (HCI2009), an ICCV2009 Workshop, pp. 2017-2024, 2009.
22. [Hamid Laga](#) and Toshitaka Amaoka. Modeling the Spatial Behavior of Virtual Agents in Groups for Non-verbal Communication in Virtual Worlds. International Universal Communication Symposium, pp.154-159, 2009.
21. Toshitaka Amaoka, [Hamid Laga](#), and Masayuki Nakajima. Modeling the Personal Space of Virtual Agents for Behavior Simulation. The IEEE International Conference on Cyber Worlds, pp. 364-370, 2009.
20. Toshitaka Amaoka, [Hamid Laga](#), Suguru Saito, and Masayuki Nakajima. Personal Space Modeling for Human-Computer Interaction. In the proceedings of the 8th International Conference on Entertainment Computing ICEC'2009, pp 60-72, Sept. 2009.
19. Luis R.Sapaico, [Hamid Laga](#), and Masayuki Nakajima. Mouth Region Localization based on Gabor Features and Active Appearance Models. In NICOGRAPH International, pp. 141-146, 2009.
18. Ning Xie, Suguru Saito, [Hamid Laga](#), and Masayuki Nakajima. Shape-driven Oriental Brush Stroke Synthesis. In NICOGRAPH International, pp. 1 – 6, 2009.
17. Jacob Montiel, [Hamid Laga](#), and Masayuki Nakajima. Prototype-based Intra-class Pose Recognition of Partial 3D Scans. In NICOGRAPH International, pp. 1 – 6, 2009.
16. Toshitaka Amaoka, [Hamid Laga](#), Suguru Saito, Masayuki Nakajima. Personal Space-based modeling of relationships between people for new Human-Computer interaction. In the International Workshop on Advanced Imaging Techniques (IWAIT), pp. 1-5, 2009.
15. Sofiane Yous, [Hamid Laga](#), Kunihiro Chihara. People Detection and Tracking with World-Z map from a Single Stereo Camera. In the 8th International Workshop on Visual Surveillance, an ECCV Workshop, pp. 1-8, 2008.

14. Hamid Laga and Masayuki Nakajima. Supervised Learning of Similarity Measures for Content-based 3D Model Retrieval. In The 3rd International Conference on Large Scale Knowledge Resources (LKR), Lecture notes in Computer Science (Springer), Vol. 4938, pp.210-225, March 2008.
13. Sofiane Yous, Hamid Laga, Kunihiro Chihara. GPU-based Shape from Silhouettes. The 5th ACM International Conference on Computer Graphics and Interactive Techniques in Australasia and South East Asia GRAPHITE 2007, Perth - Australia, pp.71-77, Nov. 2007.
12. Hamid Laga and Masayuki Nakajima. A Boosting Approach to Content-based 3D Model Retrieval. In the 5th International Conference on Computer Graphics and Interactive Techniques in Australasia and South East Asia GRAPHITE 2007, Perth - Australia, pp. 227-234, Nov. 2007.
11. Hamid Laga and Masayuki Nakajima. Statistical Spherical Wavelet Moments for Content-based 3D Model Retrieval. Computer Graphics International (CGI 2007), RJ-Brazil, pp.47-54, May 2007.
10. Hamid Laga, Kunihiro Chihara, and Masayuki Nakajima. 3D model retrieval using spherical extent functions and wavelet descriptors. SHREC2006: 3D Model Retrieval Evaluation Contest UUCS-2006-030, pp28-31, Utrecht University, 2006.
9. Hamid Laga, Hiroki Takahashi, Masayuki Nakajima. Spherical Wavelet Descriptors for Content-based 3D Model Retrieval. IEEE International Conference on Shape Modeling and Applications (SMI2006), Sendai, Japan, pp75-85, June 2006 (**Best Paper Award**).
8. Hamid Laga, Hiroki Takahashi, Masayuki Nakajima. Spherical Wavelet Descriptors for Content-based 3D Model Retrieval. International Workshop on Advanced Imaging Techniques (IWAIT), pp. 1 - 6, 2006.
7. Hamid Laga, Hiroki Takahashi, and Masayuki Nakajima, Scale-space Framework for Efficient Segmentation of Point-sampled Geometry. International Workshop on Advanced Imaging Techniques (IWAIT), pp. 1 – 6, 2005.
6. Hamid Laga, Takahashi Hiroki & Nakajima Masayuki. Scale-Space Processing of Point-Sampled Geometry for Efficient 3D Object Segmentation. International Conference on Cyber worlds, Tokyo, Japan, pp.377-383, 2004.
5. Hamid Laga, Takahashi Hiroki and Nakajima Masayuki. Geometry Image Matching for Similarity Estimation of 3D Shapes. Computer Graphics International CGI2004, Greece, pp490-496, June 2004
4. Hamid Laga, Takahashi Hiroki and Nakajima Masayuki, Geometry Image based Similarity Estimation for 3D Model Retrieval, Nicograph International 2004, Taiwan, pp.133-138, May 2004.
3. Hamid Laga, Piperakis Romanos, Takahashi Hiroki and Nakajima Masayuki. A Radial Basis Function Based Approach for 3D Object Modeling and Reconstruction. International Workshop on Advanced Imaging Technique (IWAIT), pp.139-144, January 2003.
2. Karim Achour, Nadia Zenati, Hamid Laga, Contribution to Restoration of Degraded Scene Images, Conference Africaine sur la Recherche en Informatique et en Automatique CARI98, pp.523-532, 1998 (in French).
1. Karim Achour, Nadia Zenati, Hamid Laga and M. Belhocine: Contribution to Restoration of Degraded Images, SSCC'98 International Conference on Systems, Signals, Control, Computers, pp.22-24, Sept.1998.

INVITED LECTURES AND SEMINARS (travel and accommodation fees fully paid by the hosting institutions)

1. IEEE Victoria Section (Melbourne)
3D Shape Analysis Using Riemannian Elastic Metrics: Theory and Applications in Image Processing, Pattern Recognition and Computer Graphics.
Sept 7, 2015.
2. Tongji University, China.
Title of talk 1: 3D Shape Analysis using Riemannian Elastic Metrics
Date: April 16, 2015
Audience: faculty members and graduate students
Title of talk 2: Introduction to Statistical Analysis of the Shape of 3D Objects
Date: April 21, 2015
Audience: Year 3 undergraduate students.
3. National Research Council of Italy (CNR),
Institute of Applied Mathematics and Information Technology (IMATI).
Talk title: Statistical and Structural Analysis of the Shape of 3D Objects
Date: April 2014
4. University of Mons, Belgium
Talk title: 3D Shape Analysis: From Low-Level Shape Similarities to Functional Parts Recognition.
Date: Jan 2012.
5. Nissan Research and Development Center, Japan.
One-day tutorial on 3D Shape Analysis: theory and applications to automotive industry.
Date: August 30, 2010.
6. Carnegie Mellon University, Entertainment Technology Center (ETC).
One-day tutorial on Multiview-based 3D reconstruction: theory and applications in entertainment technologies.
Date: June 2010.
7. Aarhus University (Denmark), Aarhus Engineering School (ASE)
Talk title: Issues and Opportunities in Large-scale Visual Media Analysis.
Date: June 2009.
8. University of Siegen, Germany
Talk title: Internet-scale Visual Media Analysis: Opportunities and Challenges.
Date: December 2009.
9. University of Monterrey, Mexico
A three-days lecture on 3D Computer Vision Systems: Algorithms and Applications.
Date: February 2008.

PUBLIC LECTURES, SEMINARS, AND PRESENTATIONS

1. Eurographics 2014.
Half-day tutorial: Reasoning About Shape In Complex Datasets: Geometry, Structure and Semantics.
Speakers: Silvia Biasotti, [Hamid Laga](#), Michela Mortara and Michela Spagnuolo.
Date: April 2015.
2. International Conference on Pattern Recognition (ICPR) 2012.
Half-day tutorial: 3D Shape Analysis - Recent Advances and Trends.
Speakers: Hamid Laga and Ryutarou Ohbuchi
Date: December 2012.
3. University of South Australia
Talk title: People Detection and Tracking.
Date: March 2009. (Note that at this time I was employed at Tokyo Institute of Technology in Japan)
4. University of South Australia
Talk title: 3D Model Acquisition, Classification, and Search.

Date: December 2007. (Note that at this time I was employed by Tokyo Institute of Technology in Japan)

EDITORIAL BOARDS AND PEER REVIEWING ACTIVITIES

Guest editor

- The Visual Computer Journal (Springer),
Special Issue of the 4th Eurographics Workshop on 3D Object Retrieval.

International conference organizer and chair

- Special session organizer and chair at MODSIM 2013 and 2015
Session title: Mathematical Modelling and Image Analysis for Plant Phenotyping.
- The 4th Eurographics Workshop on 3D Object Retrieval EG-3DOR 2011 (UK), a Eurographics 2011 co-event, In-cooperation ACM Siggraph.

Program Vice Chair

- The International Conference on Frontier of Computer Science and Technology (FCST2010), the “Computer Vision and Image Processing” track.

International Program Committee

- IEEE International Conference on Computer Vision and Pattern Recognition (CVPR) 2016.
- IEEE International Conference on Computer Vision (ICCV) 2015.
- Diff-CV: Differential Geometry in Computer Vision for Analysis of Shapes, Images and Trajectories, a BMVC2015 workshop.
- Shape Modeling International (SMI), 2014
- WCCI2014, Special Session on Machine Learning for Computer Vision
- Eurographics Workshop on 3D Object Retrieval 2012 - 2015.
- IEEE International Conference on Image Processing (ICIP) 2008-2011.
- ACM International Workshop on 3D Object Retrieval 2010 with ACM-Multimedia 2010,
- InfoScale 2009,
- Virtual Reality Continuum and its Application in Industry (VRCAI2009).

Session chair

- International Conference on Image Processing (ICIP) 2013.
- Virtual Reality Continuum and its Application in Industry (VRCAI2009).

Reviewer at

- Siggraph, Siggraph Asia, and ACM Transactions on Graphics (ARC ERA A*)
- IEEE transactions on image processing journal (ARC ERA A*)
- Computer Vision and Image Understanding Journal
- Computer and Graphics Journal, Elsevier (ARC ERA B).
- Neurocomputing Journal, Elsevier (ARC ERA A),
- IEICE Transactions on Information and Systems (ARC ERA C),
- Journal of Computer Aided Design (Elsevier),
- International Journal of Computer Vision, Elsevier (ARC ERA A*),
- The Computer Graphics Forum (ARC ERA B),
- The Visual Computer Journal, Springer (ARC ERA B).
- Eurographics (2009, 2010, 2011, 2013, 2014),
- Shape Modeling International (2014)
- IEEE International Conference on Computer Vision (ICCV)
- Asian Conference on Computer Vision (ACCV)
- International Conference on Pattern Recognition (ICPR)
- IEEE International Conference on Image Processing (ICIP) 2011, 2010, 2009, 2008.
- IEEE International Conference on Cyberworlds (CW) 2004.

Reviewer of research grants

- ARC discovery grants 2015.
- The Austrian Science Fund FWF (2012, 2010)