PROF. NADIA MAGNENAT THALMANN

Title: Professor & Director, Institute for Media Innovation

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H-Index (google scholar) : 75

Ranking: Third Best Computer Graphics Researcher in the world according to Microsoft Academic Research (http://goo.gl/b90YTC)

- **CURRENT POSITION AND PAST EMPLOYMENT HISTORY**

2009-Present	Visiting Professor at the School of Computer Engineering (SCE) in Nanyang Technological University (NTU), Singapore
	Director of the Institute for Media Innovation (IMI), NTU, Singapore
2003-2006	Vice-Rector, University of Geneva, Switzerland
2002-2006	Director of CUI (Computer Research Center), University of Geneva, Switzerland
1989-Present	Founder and Director of MIRALab, CUI, University of Geneva, Switzerland
1989-2009	Professor in Computer Science, University of Geneva, Switzerland
1996-1998	Director of the Department of Information Systems (SES), University of Geneva, Switzerland
1985-1989	Full Professor, HEC, University of Montreal, Canada
1990-Present	Editor-in-Chief, The Visual Computer, Springer-Verlag, Germany
2014-2017	Associate Editor, Frontiers in Robotics, Nature publisher
1990-Present	Co-Editor-in-chief, Computer Animation & Virtual Worlds, John Wiley & Sons, Chichester, UK

- **ACADEMIC QUALIFICATIONS**

1977	*Ph.D. in Quantum Physics*, University of Geneva, Switzerland
1977	*Postgraduate Diploma in Computer Science and Mathematics,* EPFL, Switzerland
1972	*Diploma in Biochemistry*, University of Geneva, Switzerland
1966	*Licence in Biology*, *Licence in Psychology,* University of Geneva, Switzerland

- **10 RECENT SELECTED PUBLICATIONS (among 700 publications)**

1. J. Hou, L.-P. Chau, N. Magnenat Thalmann and Y. He, **Low-latency Compression of Mocap Data using Learned Spatial Decorrelation Transform**, Computer Aided Geometric Design (CAGD) (IF: 1.639), DOI: 10.1016/j.cagd.2016.02.002, February 2016

2. J. Hou, L.-P. Chau, N. Magnenat Thalmann, Y. He, **SLRMA: Sparse Low-Rank Matrix Approximation for Data Compression**, IEEE Transactions on Circuits and Systems for Video Technology (TCSVT) (IF: 2.259), Vol. PP, Issue. 99, DOI: 10.1109/TCSVT.2015.2513698, pp. 1, December 2015

3. Z. Zhang, A. Beck and N. Magnenat Thalmann, **Human-Like Behavior Generation Based on Head-Arms Model for Tracking External Targets and Body Parts**, IEEE Transactions on Cybernetics (IF: 3.469), vol. 45, Issue. 8, August 2015

4. A. Chincisan, K. Tecante, M. Becker, N. Magnenat Thalmann, C. Hurschler, H.F. Choi, **A Computational Approach to Calculate Personalized Pennation Angle based on MRI: Effect on Motion Analysis**, Journal of Computer Assisted Radiology and Surgery (IF: 1.66), DOI: 10.1007/s11548-015-1251-9, July 2015

5. M. Pitikakis, A. Chincisan, N. Magnenat Thalmann, L. Cesario and P. Parascandolo, L. Vosilla and G. Viano, **Automatic Measurement and Visualization of Focal Femoral Cartilage Thickness in Stress-based Regions of Interest using Three-dimensional Knee Models**, Journal of Computer Assisted Radiology and Surgery (IF: 1.66), DOI: 10.1007/s11548-015-1257-3, July 2015

6. M. Becker, N. Nijdam and N. Magnenat Thalmann, **Coupling Strategies for Multi-resolution Deformable Meshes: Expanding the Pyramid Approach beyond its One-way Nature**, Journal of Computer Assisted Radiology and Surgery (IF: 1.66), DOI: 10.1007/s11548-015-1241-y, June 2015

7. J. Zhang, J. Zheng and N. Magnenat Thalmann, **PCMD: Personality-characterized Mood Dynamics Model Toward Personalized Virtual Characters**, Computer Animation and Virtual Worlds (IF: 0.463), vol. 26, Issue 3-4, pp. 237-245, April 29, 2015

8. Z.P. Bian, J. Hou, L.-P. Chau, and N. Magnenat Thalmann, **Facial Position and Expression Based Human Computer Interface for Persons with Tetraplegia**, IEEE Transactions on Information Technology in Biomedicine (IEEE T-ITB) (IF: 2.072), March 2015

9. J. Hou, L.-P. Chau, N. Magnenat Thalmann and Y. He, **Human Motion Capture Data Tailored Transform Coding**, IEEE Transactions on Visualization and Computer Graphics (IEEE T-VCG) (IF: 1.919), 25(1): 51-62, February 2015

10. X. Shao, Z. Zhou, N. Magnenat Thalmann, W. Wu, **Stable and Fast Fluid–solid Coupling for Incompressible SPH**, Computer Graphics Forum (IF: 1.595), vol. 34, no. 1, pp. 191-204, February 2015

- **RECENT AWARDS (among more than 44)**
  - 2014 Best Overall Paper Award at IEEE BIBM 2014 (with M. Becker)
  - 2014 Best Paper Award at MICCAI 2014 (with H.F. Choi and A. Chincisan)
  - 2013 CGI Achievement Award, CGI'2013, Germany
  - 2012 Humboldt Research Award, Humboldt Foundation, Germany
  - 2012 The Canadian Human Computer Communications Society Achievement Award, Canada
  - 2010 Honorary Doctorate from University of Ottawa, Canada
  - 2010 Eurographics Distinguished Career Award
  - 2009 Dr. Honoris Causa in Natural Sciences from the Leibniz University of Hannover
  - 2009 First Medical Prize, Eurographics 2009

- o 2008 Designated as Visiting Professor at Bournemouth University at the Media School as a recognition of international standing
- o 2007 Best Application Paper Award for 2007, International Journal of Virtual Reality

- **KEYNOTE LECTURES**

More than 300 invited and keynote lectures. Among the most prestigious ones, the World Economic Forum in Davos, SIGGRAPH, European Union Forums and Conferences, ETH Switzerland, Kaist in Korea, Tsinghua in China, etc. See detailed CV

- **MEMBER OF INTERNATIONAL RECENT ACADEMIC PANELS**

  - o Jury of the Vienna Science and Technology Fund, Austria
  - o Advisory Board for Computer Science at Tsinghua University in Beijing, China
  - o Canada Excellence Research Chairs Review Panel in Ottawa
  - o European Research Council (ERC), Bruxelles

- **RESEARCH PROJECTS**

  In Singapore

  1. **BeingThere Centre**, (BTC) funded by MDA, Singapore (12 million EURO project) On 3D Telepresence, including Virtual Humans and Social Robots. Centre Co-Director and PI
  2. **Advanced Immersive Medical Environments,** Lee Kong Chian School of Medicine, NTU. PI

  In MIRALab, UNIGE: participation to more than 50 EU Research achieved Projects
  Ongoing projects in **MIRALab**:

  1. Marie Curie Project **MUSTISCALE HUMAN** (http://multiscalehuman.miralab.ch/), a European network of excellence of 3 million euros (University of Geneva, Switzerland), Coordinator
  2. **Replay**: Reusable platform for digitizing and preserving traditional participative sports
  3. **ITN-DCH**: projecting our past into the future
  4. **Aninex**: User Centred Computer Animation Techniques for Next Generation Digital Creation and Modelling

- **MEDICAL RESEARCH RECENTLY CITED IN INTERNATIONAL PRESS**

  1. ScienceShot: Making Virtual Humans Dance, by Kelly Servick, Science, February 14, 2014
  2. Simulierter Patient: Operieren am virtuellen Menschen, Aus Chicago AAS berichtet Markus Becker, Spiegel Online, Februar 16, 2014
  3. Dancing ballerina skeleton pinpoints injury hotspots, by Aviva Rutkin, New Scientist, Health, February 18, 2014