CUI ACTIVITY REPORT 2012

1st January 2012 to 31 December 2012

Team

- **Director**
  Nadia Magnenat-Thalmann, Professor

- **Assistants (PhD students)**
  Lazhari Assassi
  Matthias Becker
  Maher Ben Moussa
  Andra Chincisan
  Quentin Flamant
  Bart Kevelham
  Niels Nijdam
  Yvain Tisserand

- **Senior Researchers**
  Mariène Arévalo
  Nedjma Cadi-Yazli

- **Visiting Academic Guests**
  Prof. WonSook LEE, University of Ottawa
  Prof. Chris Joslin, Carleton University, Ottawa

- **Administration**
  Lara Broi
Domain activities

- Description of the activities of the laboratory research

MIRALab was founded in 1989 by Professor Nadia Magnenat-Thalmann and brings together about 25 researchers from different fields, such as computer science, mathematics, medical field, design, architecture, fashion design, cognitive science, etc. This truly interdisciplinary group works in the field of computer graphics, computer animation and virtual worlds.

Since 1992, MIRALab has participated in more than 47 European Projects and contributes to the management of two International Conferences, CASA and CGI. Moreover, MIRALab produces 3D showcases for museums, galleries, such as fashion shows or cyerdances with virtual models and clothes. In 2012, MIRALab was working on the following projects: 3D LIFE, AERIAL CROWD, FNRS Real, FRANCOPHONIE and MULTISCALEHUMAN a Marie Curie Research Training Network. MIRALab has organized various International conferences and workshops.

The following are some images of our work:

![Images of various modeling and simulation techniques](image-url)
Collaborative telemedicine system

Framework for Adaptive Distributed Simulation and 3D Rendering Services

Automatic Skeleton Positioning from 3D scan data
The Virtual Mirror: real-time garment simulation technology with motion tracking and automatic generation of avatars

- Website: http://www.miralab.ch

List of publications - Refereed papers in international journals 2012


Kalapanidas, F. Fernández-Aranda, **Facial anger and joy expression in eating disorders and healthy controls: A pilot study with a computerized technique.** European Eating Disorders Review, Special Issue on Emotions and Eating disorders, Wiley, 2012


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**List of publications - Full refereed papers in Conference Proceedings in 2012**


List of publications - Research and technical reports

Several technical reports for the following projects: 3D LIFE, AERIAL CROWD, FNRS, FRANCOPHONIE and MULTISCALEHUMAN.


International and national advisory committees (Prof. Nadia Magnenat-Thalmann)

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<thead>
<tr>
<th>Year</th>
<th>Activity</th>
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<tr>
<td>2012</td>
<td>Participation in the Canada Excellence Research Chairs Review Panel, Ottawa, Canada</td>
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<td>2012</td>
<td>Member of External Advisory Committee, Graduate School of Computer Technology, GSCT KAIST, Korea</td>
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<td>2007-2012</td>
<td>Expert and reviewer of the Seventh Framework Programme FP7, European Commission</td>
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<td>2002-Present</td>
<td>Member of the Strategic Advisory Board Committee, City University, Hong Kong, China</td>
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<td>2000- Present</td>
<td>Member of the “3ème cycle romand d’informatique”, Conférence universitaire de la Suisse occidentale (CUSO), Switzerland.</td>
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<td>1994- Present</td>
<td>President of the Computer Graphics Association (CGS)</td>
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Conference organization as chair or co-chair

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<th>Year</th>
<th>Event</th>
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<tr>
<td>Sept. 2012</td>
<td>Award Chair, 18th International Conference on Virtual Systems and Multimedia, VSMM 2012, Italy</td>
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<tr>
<td>July 2012</td>
<td>Jury Review Chair, 5th ACM SIGGRAPH Conference and Exhibition on Computer Graphics and Interactive Techniques in Asia, Singapore</td>
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<tr>
<td>May 2012</td>
<td>Program and Conference Chair, 25th Annual Conference on Computer Animation and Social Agents, CASA 2012, Singapore</td>
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Invited talks, Keynotes and Tutorials (Prof. Nadia Magnenat-Thalmann)


[8] Invited talk at Graduate School of Computer Technology, KAIST, “The 3D Virtual Patient”, Korea, November 1, 2012


Funded research projects – Participation to European projects

- **3D Life**  
  *Bringing the Media Internet to Life*  
  Period: January 2010 – June 2013  
  Type: European Research  
  Website: http://www.3dlife-noe.eu/  
  MIRALab Budget 2012: CHF 118’573.-  
  Partners (7 partners):  
  - Queen Mary and Westfield College, University of London – United Kingdom  
  - Dublin City University – Ireland  
  - Institut Telecom – France  
  - Fraunhofer Gesellschaft zur Foerderung der angewandten Forschung e.V. – Germany  
  - MIRALab, University of Geneva - Switzerland  
  - Centre for Research and Technology Hellas – Greece  
  - Korea University – Republic of Korea

- **MULTISCALEHUMAN**  
  *Multi-scale Biological Modalities for Physiological Human Articulation*  
  Period: October 2011 - September 2015  
  Type: European Research  
  Website: http://multiscalehuman.miralab.ch/  
  MIRALab Budget 2012: CHF 182’640.-  
  Partners (2 partners):  
  - MIRALab, University of Geneva - Switzerland  
  - Les Hôpitaux Universitaires de Genève – Switzerland  
  - Universidade do Minho – Portugal  
  - Medizinische Hochschule Hannover – Germany  
  - Consiglio Nazionale Delle Ricerche - Italy  
  - Softeco Sismat Srl – Italy  
  - Gottfried Wilhelm Leibniz Universitaet Hannover – Germany
Funded research projects

Participation to National projects

- **Aerial Crowd**
  *Swiss National Research Foundation Project: Aerial Crowd: Populating Mixed Reality Cities*
  Period: February 2011 – April 2013
  Type: Swiss Research
  MIRALab Budget 2012: CHF 35’270.-

  Partners (4 partners):
  - Ecole Polytechnique Fédérale de Lausanne, Computer Vision Laboratory (CVLab) – Switzerland
  - Ecole Polytechnique Fédérale de Lausanne, Virtual Reality Laboratory (VRLab) – Switzerland
  - ETHZ Computer Vision Laboratory – Switzerland
  - MIRALab, University of Geneva – Switzerland

- **FNRS-REAL**
  *Swiss National Research Foundation Project: Realistic Computer Human Animation using Medical Modelling*
  Period: October 2010 – September 2012
  Type: Swiss Research
  MIRALab Budget 2012: CHF 97’080.-

  Partners (4 partners):
  - Ecole Polytechnique Fédérale de Lausanne, Computer Vision Laboratory (CVLab) – Switzerland
  - Ecole Polytechnique Fédérale de Lausanne, Virtual Reality Laboratory (VRLab) – Switzerland
  - ETHZ Computer Vision Laboratory – Switzerland
  - MIRALab, University of Geneva – Switzerland

Others

- **Refereeing**
  - Jury of Ph.D. thesis for New Zealand, France, Sweden, Switzerland and Germany.
  - European Union, FP7 Projects, Brussels.
  - Research Grants Council of Singapore.
  - Natural Sciences and Engineering Research Council of Canada.
  - National Science Foundation USA.
  - Swiss National Research Foundation.
  - Austrian Research Foundation.
Editorial responsibilities

Since 2007
Associate Editor-in-chief of the *International Journal of Virtual Reality*, IPI Press, USA.

Since 2007
Regional Editor of the Journal *Intelligent Decision Technologies*, IOS Press, Netherlands.

Since 2000
Editor-in-chief of the Journal *The Visual Computer* published by Springer Verlag, Germany.

Since 1995

Since August 1994
Member of Editorial Board, *Journal of Universal Computer Science, Electronic Journal*.

Since 1993
Member of Editorial Board, *Journal of Computer Graphics*, Russia.

Since 1990

Since 1987
Associate Editor-in-chief, *The Visual Computer*, Springer Verlag, Heidelberg.

Honours and scientific awards for 2012

2012
Professor Nadia Magnenat-Thalmann received the prestigious Humboldt Research Award in Germany in recognition of her outstanding achievements and fundamental discoveries, June 2012, Alexander von Humboldt Foundation, Germany

This award is granted in recognition of a researcher's entire achievements to date to academics whose fundamental discoveries, new theories, or insights have had a significant impact on their own discipline and who are expected to continue producing cutting-edge achievements in the future.

Many Nobel Prize Winners have also received this award: [http://www.humboldt-foundation.de/pls/web/docs/F13971/nobelpreistraeger.pdf](http://www.humboldt-foundation.de/pls/web/docs/F13971/nobelpreistraeger.pdf)

2012
The Canadian Human Computer Communications Society Achievement award.