



## Nadia Magnenat Thalmann - Summary CV

[https://en.wikipedia.org/wiki/Nadia\\_Magnenat\\_Thalmann](https://en.wikipedia.org/wiki/Nadia_Magnenat_Thalmann)

Google scholar: 88 Citations: 29236 (as May 2020)

### Degrees

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1977	<b>Ph.D. in Quantum Physics (summa cum laude)</b> "Visualization of approximate solutions of the Schrödinger wave equation"	University of Geneva, Switzerland
1975	<b>Postgraduate Certificate in Computer Science and Mathematics</b>	EPFL Lausanne, Switzerland
1972	<b>Postgraduate Certificate in Statistics and Computer Science</b>	University of Geneva, Switzerland
1970	<b>Diploma in Biochemistry (MSc)</b>	University of Geneva, Switzerland
1966	<b>License in Psychology (Bachelor)</b>	University of Geneva, Switzerland

### Main Positions

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2009 – Actual	Visiting Professor at the School of Computer Science and Engineering (SCSE) in Nanyang Technological University (NTU), Singapore. Since October 2019 adjunct Professor Director of the Institute for Media Innovation (IMI), NTU, Singapore Director of MIRALab, CUI, University of Geneva
2002 – 2006	Director of CUI (Computer Science Research Center), University of Geneva, Switzerland
1989 – 2009	Professor, Founder and Director of MIRALab, CUI, University of Geneva, Switzerland
1978 - 1989	Assoc Prof and full Professor at HEC, University of Montreal, Canada
1977 -1978	Assistant Professor, University Laval, Quebec, Canada

### Major Honors and Awards

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2012	<b>Humboldt Research Award</b> Alexander von Humboldt Foundation, Germany, 2012 ( <a href="https://www.dropbox.com/s/1kv34gg558659iz/Humboldt%20Research%20Award_Humboldt.pdf?dl=0">https://www.dropbox.com/s/1kv34gg558659iz/Humboldt%20Research%20Award_Humboldt.pdf?dl=0</a> )
2012	<b>The Canadian Human Computer Communications Society Achievement Award</b> , Canadian Human Computer Communications Society, Canada, 2012 ( <a href="https://www.dropbox.com/s/5irvj9qn4xyjkte/The%20Canadian%20Human%20Computer%20Communications%20Society%20Achievement%20Award%202012.pdf?dl=0">https://www.dropbox.com/s/5irvj9qn4xyjkte/The%20Canadian%20Human%20Computer%20Communications%20Society%20Achievement%20Award%202012.pdf?dl=0</a> )
2010	<b>Honorary Doctorate</b> from the University of Ottawa, Canada, June 04, 2010 ( <a href="https://www.dropbox.com/s/cixzz6r5jd8rgam/Honorary%20Doctorate_University%20of%20Ottawa.pdf?dl=0">https://www.dropbox.com/s/cixzz6r5jd8rgam/Honorary%20Doctorate_University%20of%20Ottawa.pdf?dl=0</a> ) ( <a href="http://www.youtube.com/watch?v=KnNfGkxKYac">http://www.youtube.com/watch?v=KnNfGkxKYac</a> )

- 2010 **Eurographics Distinguished Career Award 2010** at the opening session of EG2010, Linköping University, May 2010  
([https://www.dropbox.com/s/o8e7e7gvlfyi7x1/Eurographics%20Distinguished%20Career%20Award\\_EG%202010.pdf?dl=0](https://www.dropbox.com/s/o8e7e7gvlfyi7x1/Eurographics%20Distinguished%20Career%20Award_EG%202010.pdf?dl=0))
- 2009 **Dr. Honoris Causa in Natural Sciences** from the Leibniz University of Hannover, Hannover, January 22, 2009  
([https://www.dropbox.com/s/q7s2rbns1ay0vx4/Dr.%20Honoris%20Causa%20in%20Natural%20Sciences\\_Leibniz%20University%20of%20Hannover.pdf?dl=0](https://www.dropbox.com/s/q7s2rbns1ay0vx4/Dr.%20Honoris%20Causa%20in%20Natural%20Sciences_Leibniz%20University%20of%20Hannover.pdf?dl=0))
- 1997 **Elected Member of the Swiss Academy of Engineering Sciences**, Bern, Switzerland  
(<http://www.satw.ch/en/ueber-satw/members/>)
- 1987 **Elected “Woman of the Year”**, for her outstanding contribution in making science an attractive field, scientific category, by the Greater Montreal Association, at the *Olympic, Stadium in Montreal, Montreal, Canada*
- 1985 **Communications Award from the Government of Quebec** to “a personality who has made an Outstanding contribution to the communications sector”, *Montreal, Canada*

## Keynotes or Invited Talks

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<https://www.dropbox.com/s/kpcq52mdf2ylzen/Invited%20Talks%20and%20Keynotes.docx?dl=0>

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## List of Publications

[https://www.dropbox.com/s/pjuatdemmajzy/Publications\\_NMT\\_26May\\_2020%20with%20sections.doc?dl=0](https://www.dropbox.com/s/pjuatdemmajzy/Publications_NMT_26May_2020%20with%20sections.doc?dl=0)

## Filmography

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<https://www.dropbox.com/s/ez35q242obevx6w/Filmography%20Nadia%20M%20Thalmann.docx?dl=0>

## 3D Films, Live Shows and Museum Exhibitions and Filmography

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**More than hundred films produced on Nadine social robot on YouTube**

([https://www.youtube.com/results?search\\_query=nadine+social+robot](https://www.youtube.com/results?search_query=nadine+social+robot))

## Press File and Media Productions

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More than 150 press articles, video news releases, have been produced for social autonomous robot Nadine. These articles were published internationally in the following media: **Fox News (US)**, Toronto Sun (Canada), Huffington Post, News Max (US), **Reuters**, **The Daily Mail**, Press Telegraph, Computer World, Asian Scientist, **Newsweek**, Market Business News, Wired, Charlotte Observer, CIO Today, Fox 5, WGN TV, **New York Times**, **BBC World Service**, **Fortune**, The Times Gazette, **The Straits Times**, **ABC News**, Sky News, **Forbes**, **MSNBC International**, The Tribune, Times of India, the Independent, ABC NEWS, MTV, Daily Express, New York Post, The Financial Express, Tamil Murasu, **The Daily Telegraph**, The Sun, United Press International, **International**

**Business Times, MSN, Wired (UK), The Economic Times, Yahoo News, University Herald, The New Paper Online, United Press International, Daily Mail Online, etc.**

(<https://www.youtube.com/playlist?list=PLoWgnh2xllkAD0LNCP31LEav4KGj0gYGF>)

## **My Research and Publications are divided into three main Periods:**

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During all this time, I have supervised 42 PhD students who are now working as Professors in various Universities around the world as U. of Carleton in Ottawa, U. of Strasbourg, University of Zagreb, Tsinghua University, etc. Some of them went to top companies as Alibaba, Google, Electronics Arts, Facebook, etc. Others became CEO or CTO in banks or insurances as Swisscom for example.

### **1) From 1978 to 1989 (pioneer papers available in Publication list, University of Montreal, Canada)**

I created my own lab, MIRALab at HEC, University of Montreal (MIRA stands for my female dog name I brought in Canada). My main areas of research: starting from the representation of 2D scene towards 3D representation and animation of objects with shading. Early 1986, creation of the very first 3D Virtual Humans similar to legendary stars as Marilyn Monroe and Humphrey Bogart. Started pioneer methods in 3D facial, body and hand animation. Creation of the first interactive designer oriented system MIRANIM for the making of the film Rendez-vous in Montreal done with the help of designers. Before this film, when we produced the film DREAMFLIGHT, we had to write 15 000 lines of code in Pascal language.

### **2) From 1990 to 2010 (MIRALab, University of Geneva)**

I founded a formal research lab, MIRALab, part of the Centre University of Computer Science (CUI). My main areas of research: physics based simulation of cloth and hair. Automatic modelling of Virtual Humans (both head and body). New methods in real-time facial and body animation. Extensive work on physical simulation of clothes. Creation of VR and AR methods in real time and many telepresence experiences from Singapore to Geneva and Lausanne to Geneva using 3D cloned representations of real persons. Many contributions to cultural heritage as the Hagia Sofia Mosque in Istanbul, terra cotta soldiers, recreating life in Pompeii, and many others. Important scientific contribution to the 3D medical patient. I started social robotics with the robot EVA in 1988 with new models of memory and facial expressions for robots.

### **3) From 2011 to 2020 (ongoing), NTU, Singapore, MIRALab, University of Geneva**

Following the invitation of the former President of Nanyang Technological University in Singapore, Professor Bertil Anderson, I started a new Institute, the Institute for Media Innovation (IMI). The goal of this new Institute was to bring interdisciplinary in many schools including Computer Science, Mechanical Engineering, Physical and Mathematical schools to break the barriers between disciplines. I encouraged some professors to join the Institute and together, we worked on developing new methods in computer vision and image understanding or compression and recommendation systems and on applications in 3D Telepresence, Virtual Humans and social Robots. I have initiated or contributed to many papers in gestures analyses, recommendations systems, compression techniques, 3D telepresence, VHs and social robot's behavior, most of them published in top journals and conference as ICCV, PAMI, IEEE Trans. On Multimedia and many others. In the same time, at MIRALab, at the University of Geneva, with my PhD students, I continued the research in medical simulation of articulations, emotions, EEG for capturing emotions, VR/AR and cultural heritage. I directed quite a few films to demonstrate the research.