

## Education

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- 2008 - 2011      **Ph.D. in Computer Science**  
• Haptic and Multimodal rendering  
• Physically-based simulation  
• Interaction techniques in virtual reality  
*INRIA Rennes-Bretagne Atlantique, Rennes, France*
- 2007 - 2008      **Master of Science in Computer Science, Computer Graphics Specialization**  
*University of Lyon, Claude Bernard, Lyon, France*
- 2002 - 2007      **Master of Engineering in Computer Science & Engineering**  
*National Institute of Applied Sciences (INSA), Lyon, France*

## Work Experience

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- Sept. 07 - July 08      **CNRS Research Engineer**  
• Research on data-driven progressive mesh compression algorithms.  
• Development of a CGAL-based mesh processing framework.  
• Computational geometry, CGAL, OpenGL  
*LIRIS (Lyon Research Center for Images and Intelligent Information Systems), Lyon, France*
- January - July 2007      **Research Intern**  
• Development of an Ageia PhysX™-based physics engine for CAVE interaction.  
• [http://um3d.dc.umich.edu/hardware/CAVE/CAVE\\_PhysicalPresence\\_1pg.pdf](http://um3d.dc.umich.edu/hardware/CAVE/CAVE_PhysicalPresence_1pg.pdf)  
• Development of a stereoscopic viewer (anaglyph and passive) for Second Life.  
• Ageia PhysX™, OpenSG scenegraph, VRJuggler, clustering, VRML, OpenGL  
*University of Michigan 3D Lab/Virtual Reality Lab, Ann Arbor, MI, USA*
- April - August 2006      **Research Intern**  
• Adaptation of a progressive mesh compression algorithm for random access.  
• Computational geometry, Octree structures, VRML, C++, OpenGL for visualization  
*LIRIS (Lyon Research Center for Images and Intelligent Information Systems), Lyon, France*

## Languages

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- French              Mother tongue
- Spanish             Mother tongue
- English             Fluent. 110 Toefl IBT. Seven months in the United States in 2007
- Italian              Good comprehension, writing notions

## Personal interests

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- Sports              Tennis (number 1 of Uruguay, champion in March 1999, 15-16 years old category)  
Basketball, badminton, ski
- Music                Guitar (4 years of studies)
- Miscellaneous      Movies, Travelling

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## International Publications with review comitee

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### Journals

**Gabriel Cirio**, Maud Marchal, Sébastien Hillaire and Anatole Lécuyer. “Six Degrees-of-Freedom Haptic Interaction with Fluids”. *IEEE Transactions on Visualization and Computer Graphics*, 17(11):1714–1727, 2011.

### Conferences

Taku Hachisu, **Gabriel Cirio**, Maud Marchal, Anatole Lécuyer and Hiroyuki Kajimoto. “Virtual Chromatic Percussions Simulated by Pseudo-Haptic and Vibrotactile Feedback”. In *Proceedings of ACM International Conference on Advances in Computer Entertainment Technology*, 2011, to appear.

**Gabriel Cirio**, Maud Marchal, Aurélien Le Gentil and Anatole Lécuyer. “Tap, squeeze and stir the virtual world: Touching the different states of matter through 6DoF haptic interaction”. In *Proceedings of IEEE Virtual Reality*, pages 123–126, 2011.

**Gabriel Cirio**, Guillaume Lavoué, Florent Dupont (2010). *A Framework for Data-Driven Progressive Mesh Compression*. In *Proceedings of International Conference on Computer Graphics Theory and Applications (GRAPP 2010), Lecture Notes in Computer Science*, 2011, to appear.

Maud Marchal, Anatole Lécuyer, **Gabriel Cirio**, Laurent Bonnet, Mathieu Emily. “Walking Up and Down in Immersive Virtual Worlds: Novel Interaction Techniques Based on Visual Feedback”. In *Proceedings of IEEE Symposium on 3D User Interfaces*, pages 19–26, 2010.

**Gabriel Cirio**, Maud Marchal, Tony Regia-Corte and Anatole Lécuyer. “The magic barrier tape: a novel metaphor for infinite navigation in virtual worlds with a restricted walking workspace”. In *Proceedings of ACM Symposium on Virtual Reality Software and Technology*, pages 155–162, 2009.

### Other

**Gabriel Cirio**, Maud Marchal, Sébastien Hillaire and Anatole Lécuyer. “The Virtual Crepe Factory: 6DoF Haptic Interaction with Fluids”. In *ACM SIGGRAPH Emerging Technologies*, 2011.

### Submitted

**Gabriel Cirio**, Peter Vangorp, Maud Marchal, Emanuelle Chapoulie, Anatole Lécuyer and George Drettakis. “Walking in a Cube: Novel Metaphors for Safely Navigating Large Virtual Environments in Restricted Real Workspaces”. *IEEE Transactions on Visualization and Computer Graphics (Proceedings of IEEE Virtual Reality)*, 2012. Conditionnaly accepted.

**Gabriel Cirio**, Maud Marchal, Anatole Lécuyer and Jeremy R. Cooperstock. “Vibrotactile Rendering of Fluids”. *IEEE Transactions on Haptics*. Major Revision.

**Gabriel Cirio**, Maud Marchal and Anatole Lécuyer. “6DoF Haptic Rendering of Multi-State Simulations with Fluid, Deformable and Rigid Media”. *Computer & Graphics*. Submitted.

**Gabriel Cirio**, Yon Visell, Maud Marchal and Anatole Lécuyer. “Multisensory and Haptic Rendering of Complex Virtual Grounds”, Book Chapter of “Walking with the Senses: Non-visual perceptual techniques for walking in simulated environments”, ed. Y. Visell, F. Fontana. *Logos Verlag*. Submitted.