



Key facts:

- Postdoctoral researcher at Harvard (starting on Feb. 1<sup>st</sup>, 2012)
- 13 articles in peer-reviewed international journals and conferences since 2007, including three ACM Transactions on Graphics papers (Siggraph and Siggraph Asia) and a best paper award (VMV)

EDUCATION	
2012-	PostDoc at Harvard (Cambridge) in the computer graphics group (VCG), with <a href="#">Hanspeter Pfister</a> .
2010-2012	14-months PostDoc at INRIA Nancy (France), in <a href="#">ALICE</a> team, with <a href="#">Bruno Lévy</a> .
2009-2010	12 months PostDoc at the <a href="#">University of British Columbia</a> (Vancouver), with <a href="#">Michiel van de Panne</a> .
2006-2009	PhD at <a href="#">INRIA Sophia Antipolis</a> (France), in <a href="#">REVES</a> team (REndering and Virtual Environments with Sound), under the supervision of <a href="#">George Drettakis</a> . Working on " <a href="#">Audio and Visual Rendering with Perceptual Foundations</a> ", for the European project <a href="#">CROSSMOD</a> .
2005-2006	Master's Degree in Computer Graphics at University Paul Sabatier in Toulouse.
2003-2006	Engineering degree at <a href="#">INSA</a> (Institut National des Sciences Appliquées), Toulouse. <a href="#">Applied Mathematics department</a> , <i>Numerical methods and models</i>
2001-2003	Student at the engineering school <a href="#">INSA</a> , Toulouse. General studies.

**PUBLICATIONS** – see details at <http://people.seas.harvard.edu/~nbonneel/publications.html>

International Journals
Bonneel, N., Sunkavalli, K., Paris, S., Pfister, H. 2013. <a href="#">Example-Based Video Color Grading</a> . In ACM Transactions on Graphics (SIGGRAPH), 32 (4)
Bonneel, N., van de Panne, M., Paris, S., Heidrich, W. 2011. <a href="#">Displacement Interpolation Using Lagrangian Mass Transport</a> . In ACM Transactions on Graphics (SIGGRAPH Asia), 30 (6), 1-12
Cabral, M., Bonneel, N., Lefebvre, S., Drettakis, G. 2011. <a href="#">Relighting Photographs of Tree Canopies</a> . <i>IEEE Transactions on Visualization and Computer Graphics</i> . 17 (10), 1459-1474
Bonneel, N., Suied, C., Viaud-Delmon, I., Drettakis, G. 2010. <a href="#">Bimodal perception of audio-visual material properties for virtual environments</a> . In ACM Transactions on Applied Perception, 7 (1), 1-16
Bonneel, N., Paris, S., van de Panne, M., Durand, F., Drettakis, G. 2009. <a href="#">Single Photo Estimation of Hair Appearance</a> . In <i>Computer Graphics Forum (Proceedings of EGSR)</i> . 28 (4), 1171-1180
Suied, C., Bonneel, N., Viaud-Delmon, I. 2009. <a href="#">Integration of auditory and visual information in the recognition of realistic objects</a> . In <i>Experimental Brain Research</i> , 194 (1), 91-102
Bonneel, N., Drettakis, G., Tsingos, N., Viaud-Delmon, I., James, D. 2008. <a href="#">Fast Modal Sounds with Scalable Frequency-Domain Synthesis</a> . In ACM Transactions on Graphics (SIGGRAPH), 27 (3), 1-9

**Peer-Reviewed International Conferences**

Levy, B., Bonneel, N. 2012. <a href="#">Variational Anisotropic Surface Meshing with Voronoi Parallel Linear Enumeration</a> . In Proceedings of the 21 <sup>st</sup> International Meshing Roundtable (IMR'12)
Bonneel, N., van de Panne, M., Lefebvre, S., Drettakis, G. 2010. <a href="#">Proxy-Guided Texture Synthesis for Rendering Natural Scenes</a> . In <i>Vision, Modeling and Visualization (VMV'2010)</i> [ <b>Best Paper Award!</b> ].
Grelaud, D., Bonneel, N., Wimmer, M., Asselot, M., Drettakis, G. 2009. <a href="#">Efficient and Practical Audio-Visual Rendering for Games using Crossmodal Perception</a> . In ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games (I3D)
Viaud-Delmon, I., Znaïdi, F., Bonneel, N., Doukhan, D., Suied, C., Warusfel, O., N'Guyen, K-V., Drettakis, G. 2008. <a href="#">Auditory-Visual Virtual Environments to treat Dog Phobia</a> . In <i>International Conference Series on Disability, Virtual Reality and Associated Technologies (ICDVRAT)</i>

Drettakis, G., Bonneel, N., Dachsbacher, C., Lefebvre, S., Schwarz, M., Viaud-Delmon, I. 2007. [An Interactive Perceptual Rendering Pipeline using Contrast and Spatial Masking](#). In *Eurographics Symp. on Rendering (EGSR)*

Moeck, T., Bonneel, N., Tsingos, N., Drettakis, G., Viaud-Delmon, I., Alloza, D. 2007. [Progressive perceptual audio rendering of complex scenes](#). In *ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games (I3D)*

### Other Conferences and Tech. Reports

Ward, G., Kurt, M., Bonneel, N. 2012. [A Practical Framework for Sharing and Rendering Real-World Bidirectional Scattering Distribution Functions](#). *LBNL Tech Report LBNL-5954E*. Oct. 2012.

Bonneel, N., van de Panne, M., Paris, S., Heidrich, W. 2011. [Displacement Interpolation Using Lagrangian Mass Transport](#). *UBC Research Report TR-2011-02*

Suied, C. Bonneel, N. & Viaud-Delmon, I. 2008. [Integration of auditory and visual information in fast recognition of realistic objects](#). In *Frontiers in Human Neuroscience, Conf. Abstract: 10th Int.Conf. on Cognitive Neuroscience*.

Suied, C., Bonneel, N. & Viaud-Delmon, I. 2008 [The role of auditory-visual integration in object recognition](#). In *Journal of the Acoustical Society of America*. 123 (5), p. 3568.

Bonneel, N., van de Panne, M., Lefebvre, S., Drettakis, G. 2010. [Proxy-Guided Texture Synthesis for Rendering Natural Scenes](#). *INRIA Research Report number 7298*.

Bonneel, N., Suied, C., Viaud-Delmon, I., Drettakis, G. 2008. [Bimodal perception of audio-visual material properties for virtual environments](#). *INRIA Research Report number 6687*.

### EXPERIENCE

<b>2008</b> (1 month)	Internship at MIT-CSAIL, Boston (MA). Work on capturing hair reflectance from a photograph. Supervised by <a href="#">Frédo Durand</a> .
<b>2006</b> (6 months)	Master's Degree internship at <a href="#">IRIT</a> , Toulouse (FR), under the supervision of <a href="#">Mathias Paulin</a> . Work on realtime visualization of globally illuminated point-based models.
<b>2005</b> (3 months)	Internship at the company <a href="#">OKTAL-Synthetic Environment</a> , Toulouse, supervised by P.Pitot. Work on realtime visualization of dense forest.
<b>2004</b> (1 month)	Internship at <a href="#">Observatoire Midi-Pyrénées</a> , Toulouse, supervised by Marc Monnereau. Work on a fluid simulation code to simulate Io's volcanic activity.
<b>2002</b> (1month)	Internship at <a href="#">IRIT</a> , Toulouse, supervised by <a href="#">Mathias Paulin</a> . Work on a 3D file converter.

### PROFESSIONAL ACTIVITIES

Committees (IPC)	Pacific Graphics 2013, International Conference on 3D Web Technology (Web3D) 2012, Eurographics Symposium on Rendering (EGSR) 2011
Reviewing	ACM Trans. on Graphics (Siggraph: 2013, 2012; Siggraph Asia: 2012, 2010), J. of Mathematical Imaging and Vision (2012), Computer Graphics Forum (EGSR: 2011; EG: 2011, 2010; Regular issue: 2013, 2011, 2010), Engineering with Computers (2013), International Meshing Roundtable (2012), ACM Trans. on Visualization and Comp. Graphics (2010, 2011), The Visual Computer (2010), a national Czech grant (2010).
Teaching	- Head Teaching fellow for Harvard CS171 Visualization (25%). Teaching Assistant for Harvard CS205 Computing Foundations for Computational Science (25%) and CS171 (25%) - OpenGL labs for Master's students (24 hours), - C++ programming labs for undergrads (40 hours) - Co-supervision of a Master's student internship on <i>Seam Carving</i> (E. Chapoulie).

### SKILLS

Programming	Fluent in C++ and Matlab. Knowledge in Fortran and Maple.
Comp. Graphics	OpenGL, shaders. Basics in Maya modeling, motion capture (ViCon), PBRT, Ogre3D.

Math.	Optimization, Signal Processing, Numerical Analysis, Finite Elements/Differences. Knowledge in statistics, differential geometry and machine learning.
Languages	French (native), English (fluent), Spanish (beginner).

## PERSONAL PROJECTS

<a href="#">TreeGenerator</a> (2000 and 2007)	Tree modeling software, mentioned in several magazines. <a href="http://www.treegenerator.com">http://www.treegenerator.com</a> (2000+ unique visitors/month)
<a href="#">Byosphere</a> (2002-2003)	Terrrain modeling and rendering engine, raytracing in participating media. <a href="http://www.byosphere.com">http://www.byosphere.com</a>

## HOBBIES

Sports	<ul style="list-style-type: none"> <li>- Skydiving (250+ jumps), vertical wind tunnel</li> <li>- Judo for 14 years (brown belt)</li> <li>- Climbing and diving at University.</li> </ul>
Music	Music at the "Convervatoire National de Région de Toulouse": Music theory (9 years) and Oboe (5 years).