

Nicolas Bonneel

LIRIS

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CNRS research director in computer graphics, born in 1983. Part-time Assistant Professor at École Polytechnique. Team leader. Interested in optimal mass transportation and its applications to graphics, vision and imaging problems. Published 12 papers in A* venues since 2006, including ICCV and 12 Siggraph/Siggraph Asia papers (8 first authored).

Experience

2023-Now **CNRS, Research director (DR) at LIRIS (Lyon).**

2019-Now **Leading the new *Origami* computer graphics team of LIRIS (Lyon)**, that includes 25 permanents.

2019-Now **Part-time (quarter) Assistant Professor at École Polytechnique (Paris)**, starting Sept. 2019.

2014-2023 **CNRS, Junior researcher (CR) at LIRIS (Lyon).**

Research on geometry and video processing.

2012-2014 **Harvard University (Cambridge, USA), Post-Doctoral Researcher.**

With Hanspeter Pfister. Research on image and video processing using Optimal Transport theory, and teaching assistant.

2011 **INRIA Nancy - Grand Est (France), Post-Doctoral Researcher.**

With Bruno Levy. Research on geometry processing.

2010 **University of British Columbia (Vancouver, Canada), Post-Doctoral Researcher.**

With Michiel van de Panne. Research on texture synthesis and Optimal Transport theory.

2006-2009 **INRIA Sophia Antipolis (France), Ph.D. student**

Audio and Visual Rendering with Perceptual Foundations.

Advisor: George Drettakis.

July 2008 **Massachusetts Institute of Technology (MIT) (Cambridge, USA), Invited graduate student**

With Frédo Durand. Work on reflectance fitting via Optimal Transport.

2006 **Université de Toulouse Paul Sabatier, M.Sc. student**

Rendu, illumination et modèles à base de points.

Advisors: Mathias Paulin, Gaël Guennebaud.

Education

2018 **Habilitation à Diriger les Recherches**

Université Lyon 1

2009 **Ph.D. in Computer Science**

Université de Nice - Sophia Antipolis.

2006 **Master in Computer Science**

Université Paul Sabatier, Toulouse.

2006 **Engineering Diploma in Applied Mathematics**

Institut National des Sciences Appliquées (INSA), Toulouse.

Teaching Experience

Lectures	CSE306 Computer Graphics [36h/year], École Polytechnique, 3rd year Bachelor students (2020–2023) Numerical methods for Image Synthesis [~12h/year], École Normale Supérieure Lyon, Master’s students (2016–2017, 2019–2020) Computer Graphics [~28h/year], École Centrale Lyon, Master’s students (2014–2023) Visualization [~12h/year], Université Lyon 1, Master’s students (2016, 2017) Computer Graphics [~15h/year], Université Lyon 2, Master’s students (2015,2016) Geometry Processing and Optimal Transport [occasional lectures], Université Lyon 1, Master’s students (2014–2022)
Teaching Assistant	CS109 Data Science , Harvard University, Undergrads (2013) CS171 Visualization , Harvard University, Undergrads (2012, 2013) CS205 Computational Sciences , Harvard University, Master’s students (2012)
Tutorials/Labs	Image processing, Computational Geometry and Geometry processing École Normale Supérieure Lyon, Master’s students (2019) Computer Graphics (occasional participation), CPE Lyon, Master’s students (2016–2018) Algorithmic, procedural programming , Université Lyon 1, Undergrads (2014, 2015) Operations Research , Université Lyon 1, Undergrads (2015,2016) Computer Graphics , Université Lyon 1, Undergrads (2014) Programming in C , Université de Nancy, Undergrads (2011) Computer Graphics , Polytech’Nice, Master’s students (2009)
Other	Released 10 hours of video lectures on Youtube on implementing a realistic renderer. Includes 8 videos totalizing 19k views.

Supervision

PostDoc Antoine Webanck (2020). Working on rendering participating media.

Ph.D Bastien Doignies (2021-). Advanced Sampling for Medical Simulations Using Machine Learning Approaches. Co-supervising with D. Coeurjolly and J. Digne; Supervised by V. Ostromoukhov.

Julien Lacombe (2019-). Machine learning for OT. Supervising; co-supervised by J. Digne

Agathe Herrou (2018–2022). Wasserstein barycenters via semi-discrete OT. Supervising; co-supervised by J. Digne and B. Levy. Now postdoc in Lyon.

Beatrix Fülöp-Balogh (2017–2021). Video-based rendering. Co-supervised; supervised by J. Digne

Matthieu Heitz (2016–2020). Inverse OT problems. Co-supervising; supervised by D. Coeurjolly and co-supervised by G. Peyré and M. Cuturi. Now postdoc at UBC (Canada).

Vincent Léon (2014–2016). Semantic description of 3d models for example-based modeling. Now lead scientist at Uranium. Co-supervised with G. Lavoué; supervised by J-P. Vandeborre

M.Sc Emile Ciuperca (2020), 2nd year, ENS Paris-Saclay. Convergence of sliced optimal transport. Joint work with F. Santambrogio and J. Digne.

Emile Hohnadel (2020), 2nd year, ENS Lyon. Fluid simulation with semi-discrete optimal transport. With B. Lévy and J. Digne.

Julien Lacombe (2019), 2nd year, Univ. Lyon 1 (CS). Wasserstein barycenter layers in neural networks. With J. Digne, G. Peyré, M. Cuturi.

Guillaume Chereau (2019), 2nd year, Univ. Lyon 1 (Math). Importance sampling for sliced optimal transport. With F. Santambrogio and J. Digne.

Loïs Paulin (2019), gap year, ENS Lyon. Sliced optimal transport to generate uniform point sets for Monte Carlo integration. With V. Ostromoukhov, M. Desbrun, D. Coeurjolly, J-C. Iehl.

Abir Zendagui (2018), 2nd year, Univ. Lyon 2 (CS). Material perception. With G. Lavoué, C. Soler and J-P. Farrugia.

Martin Guy (2018), 2nd year, ENS Lyon. Control variates for rendering. With J Digne, J-C Iehl

Yoann Coudert-Osmont (2018), 1st year, ENS Lyon. Vector field interp. on meshes. With D.Coeurjolly

Agathe Herrou (2017), 2nd year, ENS Lyon. Semi-discrete OT. With J. Digne and B. Levy.

Beatrix-Emőke Fülöp-Balogh (2017), 2nd year, ENS Lyon. Using rolling shutter-like effect of LiDaR scanners to reconstruct dynamic point clouds. With J. Digne.

Emmanuelle Chapoulie (2009), 1st year, Polytech’Nice. Seam carving. With G. Drettakis.

Professional Activities

Responsibilities

Group leader – Leading a 26 permanent (incl. 2 associates) computer graphics team, Origami, since Sept. 2019.

The Visual Computer (Springer) – Associate Editor since 2016.

Fédération Informatique de Lyon (2017-2018) – Responsible for the [Image and Computer Graphics](#) group.

LIRIS Seminar – In charge of organizing LIRIS seminars since 2017.

International Program Committee

ACM SIGGRAPH (2022,2021), Eurographics (2022), Eurographics Symposium on Rendering (2022, 2011), Pacific Graphics (2013–2018), IEEE International Conference on Computational Photography (2019, 2017,2016), Computer Graphics International (2019, 2018), Graphics Interface (2018), ACM SIGGRAPH Asia Posters and Shorts (2017, 2016), Eurographics Short papers (2017), Workshop on Self-Organizing Maps and Learning Vector Quantization, Clustering and Data Visualization (2017), CAD/Graphics (2015), ACM Web3D (2012).

Expert

Reviewed grants from Région Auvergne Rhône-Alpes (2017, 2018), an ANR grant (2018), a CIFRE thesis proposal (2015), and a grant proposal for the Czech Science Foundation (2011)

PhD committee

Alexandre Eid (2022): *Contribution au pronostic de pannes d'actionneurs électromécaniques – Application en milieu aéronautique* (Advisors: Guy Clerc, Babak Nahid-mobarakeh)

Marie-Julie Rakotosaona (2021): *Learning-based representations and methods for 3D shape analysis, manipulation and reconstruction* (Advisor: Maks Ovsjanikov)

Dmitry Kuzovkin (2019, reviewer): *Assessment of photos in albums based on aesthetics and context* (Advisors: Olivier Le Meur, Rémi Cozot)

Hristina Hristova (2017): *Example-guided image editing* (Advisors: Olivier Le Meur, Rémi Cozot)

Guillaume Tartavel (2015): *Modèles variationnels pour les textures : applications à la synthèse et à la restauration* (Advisors: Gabriel Peyré, Yann Gousseau)

Organizing committees

École de Recherche du GdR IGRV (2020): “Local” organizing committee. A week-long virtual classroom on optimal transport (97 attendees).

Eurographics (2017): Local organizing committee of Eurographics, the third major computer graphics conference (after SIGGRAPH and SIGGRAPH Asia), held in Lyon in 2017 with more than 400 attendees. Co-chair of the Eurographics Doctoral Consortium, a co-located event which promotes interactions between young PhD students and renown researchers.

Journées AFIG (2015): Local organizing committee. National conference in computer graphics, held in Lyon in Nov. 2015

Invited talks

- 2022 Quantization, location, sampling, and matching, Huawei Lagrange mathematics and computing research center, Paris (France)
- 2021 Seminar at INRIA, Sophia Antipolis (virtual)
- 2020 Reproducible Research in Pattern Recognition (RRPR 2020, virtual)
- 2020 Journées inter-GDR Computational Photography (virtual)
- 2019 GTMG (Groupe de Travail en Modélisation Géométrique), Toulouse (France)
- 2019 StatLearn – talk about optimal transport, Grenoble (France)
- 2019 Variational methods and optimization in imaging, Paris (France)
- 2018 SIAM Conference on Imaging Sciences in Bologna (Italy)
- 2016 Fédération Informatique Fondamentale in Lyon (France)
- 2016 CAVALIERI workshop on optimal transport, Paris (France)
- 2016 PICOE workshop on inverse problems in Autran (France)
- 2015 SMATI seminar at the applied math lab MAP5 in Paris (France)
- 2015 Lecture on video processing at Kyoto University (Japan)
- 2014 Workshop on optimal transport at Paris-Dauphine (France).
- 2014 Workshop on optimal transport at the University of Toulouse (France).
- 2014 Seminar at the Max Planck Institute, Saarbrücken (Germany)
- 2014 Seminar at MIT, Cambridge (Massachusetts)
- 2011 Seminar at Disney Research, Zurich (Switzerland)
- 2011 Seminar at INRIA, Grenoble (France)
- 2011 Seminar at INRIA, Bordeaux (France)
- 2011 Workshop on computer graphics (LIMA project) at the University of Lyon (France).
- 2010 Seminar at Photometria/TAAZ (virtual makeover company), San Diego (USA).
- 2010 Seminar at Disney Research, Glendale (California).
- 2009 Seminar at INRIA, Grenoble (France)

Softwares

Implementations for many of my papers are available online. I implemented by myself all of my 15 first-authored papers except [12]. Notably, my network simplex solver is now part of the Python Optimal Transport Library “POT”, downloaded almost 1 million times, as well as two R packages [49, 47]. I am part of the Graphics Replicability Stamp Initiative (GRSI) committee that promotes and evaluates replicable research.

Awards and Grants

ANR JCJC Grant of 250k€ on inverse problems in optimal transport (“ROOT” project, 2016-2022).

Local coordinator of an ANR Générique Grant of 120k€ (locally) on the study of the space of light paths for rendering (“CALiTrOp” project, 2017-2022).

Best paper award at the Vision Modeling and Visualization workshop, out of 43 accepted papers and 82 submissions ([37], VMV 2010)

IEEE BioVis Data contest honorable mention, for a protein visualization tool ([55], 2013)

International Journals

- [1] N. Bonneel and J. Digne, “A Survey of Optimal Transport for Computer Graphics and Computer Vision,” *Computer Graphics Forum (Eurographics State of the Art Reports, conditionally accepted)*, vol. 42, no. 2, 2023.
- [2] J. Lacombe, J. Digne, N. Courty, and N. Bonneel, “Learning to Generate Wasserstein Barycenters,” *Journal of Mathematical Imaging and Vision (JMIV)*, no. In Press, 2022.
- [3] B.-E. Fülöp-Balogh, E. Tursman, J. Tompkin, J. Digne, and N. Bonneel, “Dynamic Scene Novel View Synthesis via Deferred Spatio-temporal Consistency,” *Computers and Graphics*, vol. 107, pp. 220–230, October 2022.
- [4] L. Paulin, N. Bonneel, D. Coeurjolly, J.-C. Iehl, A. Keller, and V. Ostromoukhov, “MatBuilder: Mastering Sampling Uniformity Over Projections,” *ACM Transactions on Graphics (SIGGRAPH)*, vol. 41, Aug 2022.
- [5] B. Fraboni, A. Webanck, N. Bonneel, and J.-C. Iehl, “Volumetric Multi-View Rendering,” *Computer Graphics Forum (Eurographics)*, vol. 41, April 2022.
- [6] L. Paulin, D. Coeurjolly, J.-C. Iehl, N. Bonneel, and V. Ostromoukhov, “Cascaded Sobol’ Sampling,” *ACM Transactions on Graphics (SIGGRAPH Asia)*, vol. 40, dec 2021.
- [7] G. Lavoué, N. Bonneel, J.-P. Farrugia, and C. Soler, “Perceptual Quality of BRDF Approximations: Dataset and Metrics,” *Computer Graphics Forum (Eurographics)*, vol. 40, May 2021.
- [8] M. Heitz, N. Bonneel, D. Coeurjolly, M. Cuturi, and G. Peyré, “Ground Metric Learning on Graphs,” *Journal of Mathematical Imaging and Vision*, vol. 63, January 2021.
- [9] L. Paulin, N. Bonneel, D. Coeurjolly, J.-C. Iehl, A. Webanck, M. Desbrun, and V. Ostromoukhov, “Sliced Optimal Transport Sampling,” *ACM Transactions on Graphics (SIGGRAPH)*, vol. 39, July 2020.
- [10] N. Bonneel, D. Coeurjolly, J. Digne, and N. Mellado, “Code Replicability in Computer Graphics,” *ACM Transactions on Graphics (SIGGRAPH)*, vol. 39, July 2020.
- [11] N. Bonneel and D. Coeurjolly, “SPOT: Sliced Partial Optimal Transport,” *ACM Transactions on Graphics (SIGGRAPH)*, vol. 38, July 2019.
- [12] N. Bonneel, D. Coeurjolly, P. Gueth, and J.-O. Lachaud, “Mumford-Shah Mesh Processing using the Ambrosio-Tortorelli Functional,” *Computer Graphics Forum (Pacific Graphics)*, vol. 37, no. 7, 2018.
- [13] M. A. Schmitz, M. Heitz, N. Bonneel, F. M. N. Mboula, D. Coeurjolly, M. Cuturi, G. Peyré, and J.-L. Starck, “Wasserstein Dictionary Learning: Optimal Transport-based unsupervised non-linear dictionary learning,” *SIAM Journal on Imaging Sciences*, vol. 11, no. 1, 2018.
- [14] N. Bonneel, J. Tompkin, D. Sun, O. Wang, K. Sunkavalli, S. Paris, and H. Pfister, “Consistent Video Filtering for Camera Arrays,” *Computer Graphics Forum (Eurographics)*, vol. 36, no. 2, 2017.
- [15] N. Bonneel, B. Kovacs, S. Paris, and K. Bala, “Intrinsic Decompositions for Image Editing,” *Computer Graphics Forum (Eurographics State of the Art Reports)*, vol. 36, no. 2, 2017.
- [16] N. Bonneel, G. Peyré, and M. Cuturi, “Wasserstein Barycentric Coordinates: Histogram Regression Using Optimal Transport,” *ACM Trans. on Graphics (SIGGRAPH)*, vol. 35, no. 4, 2016.
- [17] N. Bonneel, J. Tompkin, K. Sunkavalli, D. Sun, S. Paris, and H. Pfister, “Blind Video Temporal Consistency,” *ACM Trans. on Graphics (SIGGRAPH Asia)*, vol. 34, no. 6, 2015.
- [18] V. Léon, N. Bonneel, L. Guillaume, and J.-P. Vandeborre, “Continuous Semantic Description of 3D Meshes,” *Computers and Graphics (Proc. of CAD/Graphics 2015)*, vol. 54, pp. 47–56, 2016.
- [19] N. Bonneel, J. Rabin, G. Peyré, and H. Pfister, “Sliced and Radon Wasserstein Barycenters of Measures,” *Journal of Mathematical Imaging and Vision*, vol. 51, no. 1, 2015.
- [20] N. Bonneel, K. Sunkavalli, J. Tompkin, D. Sun, S. Paris, and H. Pfister, “Interactive Intrinsic Video Editing,” *ACM Trans. on Graphics (SIGGRAPH Asia)*, vol. 33, no. 6, 2014.
- [21] F. Shen, K. Sunkavalli, N. Bonneel, S. Rusinkiewicz, H. Pfister, and X. Tong, “Time-lapse Photometric Stereo and Applications,” *Computer Graphics Forum (Pacific Graphics)*, vol. 33, no. 7, 2014.

- [22] J. Mercer, B. Pandian, A. Lex, N. **Bonneel**, and H. Pfister, “[Mu-8: Visualizing Differences between Proteins and their Families](#),” *BMC Proceedings*, vol. 8, no. Suppl 2, 2014.
- [23] N. **Bonneel**, K. Sunkavalli, S. Paris, and H. Pfister, “[Example-Based Video Color Grading](#),” *ACM Trans. on Graphics (SIGGRAPH)*, vol. 32, no. 4, 2013.
- [24] N. **Bonneel**, M. van de Panne, S. Paris, and W. Heidrich, “[Displacement Interpolation Using Lagrangian Mass Transport](#),” *ACM Trans. on Graphics (SIGGRAPH Asia)*, vol. 30, no. 6, 2011.
- [25] M. Cabral, N. **Bonneel**, S. Lefebvre, and G. Drettakis, “[Relighting Photographs of Tree Canopies](#),” *IEEE Trans. on Visualization and Computer Graphics*, vol. 17, no. 10, 2011.
- [26] N. **Bonneel**, C. Suied, I. Viaud-Delmon, and G. Drettakis, “[Bimodal perception of audio-visual material properties for virtual environments](#),” *ACM Trans. on Applied Perception*, vol. 7, no. 1, 2010.
- [27] N. **Bonneel**, S. Paris, M. van de Panne, F. Durand, and G. Drettakis, “[Single Photo Estimation of Hair Appearance](#),” *Computer Graphics Forum (Eurographics Symp. on Rendering 2009)*, vol. 28, no. 4, 2009.
- [28] C. Suied, N. **Bonneel**, and I. Viaud-Delmon, “[Integration of auditory and visual information in the recognition of realistic objects](#),” *Experimental Brain Research*, vol. 194, no. 1, 2009.
- [29] N. **Bonneel**, G. Drettakis, N. Tsingos, I. Viaud-Delmon, and D. James, “[Fast Modal Sounds with Scalable Frequency-Domain Synthesis](#),” *ACM Trans. on Graphics (SIGGRAPH)*, vol. 27, no. 3, 2008.

International Conferences with Committee

- [30] B. Doignies, N. **Bonneel**, D. Coeurjolly, J. Digne, L. Paulin, J.-C. Iehl, and V. Ostromoukhov, “[Example-Based Sampling with Diffusion Models](#),” in *Proceedings of ACM SIGGRAPH Asia (conference track)*, Dec 2023.
- [31] B.-E. Fülöp-Balogh, N. **Bonneel**, and J. Digne, “[Correcting Motion Distortions in Time-of-Flight Imaging](#),” in *ACM Siggraph Conference on Motion, Interaction and Games (Short presentation)*.
- [32] M. A. Schmitz, M. Heitz, N. **Bonneel**, F. M. N. Mboula, D. Coeurjolly, M. Cuturi, G. Peyré, and J.-L. Starck, “[Optimal transport-based dictionary learning and its application to Euclid-like Point Spread Function representation](#),” in *Proceedings SPIE Wavelets and Sparsity*, 2017.
- [33] V. Léon, V. Itier, N. **Bonneel**, G. Lavoué, and J.-P. Vandeborre, “[Semantic correspondence across 3D models for example-based modeling](#),” in *10th Eurographics Workshop on 3D Object Retrieval (3DOR)*, April 2017.
- [34] E. Levinkov, J. Tompkin, N. **Bonneel**, S. Kirchhoff, B. Andres, and H. Pfister, “[Interactive Multicut Video Segmentation](#),” in *Pacific Graphics (short paper)*, October 2016.
- [35] M. Keuper, E. Levinkov, N. **Bonneel**, G. Lavoué, T. Brox, and B. Andres, “[Efficient Decomposition of Image and Mesh Graphs by Lifted Multicuts](#),” in *IEEE Int. Conf. on Computer Vision (ICCV)*, December 2015.
- [36] B. Levy and N. **Bonneel**, “[Variational Anisotropic Surface Meshing with Voronoi Parallel Linear Enumeration](#),” in *Proceedings of the 21st International Meshing Roundtable (IMR’12)*, October 2012.
- [37] N. **Bonneel**, M. van de Panne, S. Lefebvre, and G. Drettakis, “[Proxy-Guided Texture Synthesis for Rendering Natural Scenes](#),” in *Proceedings of Vision, Modeling, and Visualization 2010 (VMV’10)*, November 2010.
- [38] D. Grelaud, N. **Bonneel**, M. Wimmer, M. Asselot, and G. Drettakis, “[Efficient and practical audio-visual rendering for games using crossmodal perception](#),” in *ACM I3D ’09: Symp. Interactive 3D graph. and games*.
- [39] I. Viaud-Delmon, F. Znaïdi, N. **Bonneel**, C. Suied, O. Warusfel, K.-V. N’Guyen, and G. Drettakis, “[Auditory-visual virtual environments to treat dog phobia](#),” in *Proceedings of the 7th ICDVRAT-International Conference on Disability, Virtual Reality and Associated Technologies*, 2008.
- [40] G. Drettakis, N. **Bonneel**, C. Dachsbacher, S. Lefebvre, M. Schwarz, and I. Viaud-Delmon, “[An Interactive Perceptual Rendering Pipeline using Contrast and Spatial Masking](#),” in *Rendering Techniques (Proceedings of the Eurographics Symp. on Rendering)*, Eurographics, June 2007.
- [41] T. Moeck, N. **Bonneel**, N. Tsingos, G. Drettakis, I. Viaud-Delmon, and D. Alloza, “[Progressive perceptual audio rendering of complex scenes](#),” in *ACM I3D ’07: Symp. on Interactive 3D graphics and games*.

Theses

- [42] N. Bonneel, *Optimal Transport for Computer Graphics and Temporal Coherence of Image Processing Algorithms*. Habilitation à diriger des recherches, Université Lyon 1, November 2018.
- [43] N. Bonneel, *Audio and Visual Rendering with Perceptual Foundations*. PhD thesis, Université de Nice - Sophia Antipolis, September 2009.
- [44] N. Bonneel, “[Rendu, Illumination et Modèles à Base de Points](#),” Master’s thesis, Université de Toulouse - Paul Sabatier, June 2006.

Other (Workshops, national conferences, technical reports, posters)

- [45] L. Paulin, D. Coeurjolly, N. Bonneel, J.-C. Iehl, V. Ostromoukhov, and A. Keller, “[Generator Matrices by Solving Integer Linear Programs](#),” Tech. Rep. arXiv:2302.13943, Feb 2023.
- [46] A. Herrou, B. Levy, V. Nivoliens, N. Bonneel, and J. Digne, “[Symmetrized semi-discrete optimal transport](#),” Tech. Rep. arXiv:2206.04529, June 2022.
- [47] F. Heinemann and N. Bonneel, “[R Package ‘WSGeometry’](#),” January 2021.
- [48] B.-E. Fülöp-Balogh, E. Tursman, J. Tompkin, J. Digne, and N. Bonneel, “[Few-camera Dynamic Scene Variational Novel-view Synthesis](#),” in *Journées Françaises de l’Informatique Graphique (3rd best paper award)*, November 2020.
- [49] D. Schuhmacher, B. Bähre, N. Bonneel, C. Gottschlich, V. Hartmann, F. Heinemann, B. Schmitzer, J. Schrieber, and T. Wilm, “[R Package ‘transport’](#),” August 2019.
- [50] N. Bonneel, “[Le transport optimal pour des applications en informatique graphique](#),” in *Interstices*, May 2017.
- [51] M. A. Schmitz, M. Heitz, N. Bonneel, F. M. N. Mboula, D. Coeurjolly, M. Cuturi, G. Peyré, and J.-L. Starck, “[Optimal transport-based dictionary learning and its application to Euclid-like Point Spread Function representation](#),” in *Proceedings SPIE Wavelets and Sparsity*, 2017.
- [52] M. Kurt, G. Ward, and N. Bonneel, “[A Data-Driven BSDF Framework](#).” ACM SIGGRAPH (Poster), July 2016.
- [53] V. Léon, N. Bonneel, G. Lavoué, and J.-P. Vandeborre, “[Géodésiques sémantiques pour la description et la labélisation automatique de parties](#),” in *Journées de l’Association Française d’Informatique Graphique*, November 2014.
- [54] G. Ward, M. Kurt, and N. Bonneel, “[Reducing Anisotropic BSDF Measurement to Common Practice](#),” in *Proceedings of the 2nd Eurographics Workshop on Material Appearance Modeling: Issues and Acquisition*, MAM’14, June 2014.
- [55] J. Mercer, B. Pandian, N. Bonneel, A. Lex, and H. Pfister, “[Mu-8: Visualizing Differences between a Protein and its Family](#).” IEEE BioVis Data Contest entry, October 2013.
- [56] G. Ward, M. Kurt, and N. Bonneel, “[A Practical Framework for Sharing and Rendering Real-World Bidirectional Scattering Distribution Functions](#),” Tech. Rep. LBNL-5954E, Lawrence Berkeley National Laboratory technical report, October 2012.
- [57] C. Suied, N. Bonneel, and I. Viaud-Delmon, “[The role of auditory-visual integration in object recognition](#),” *Journal of the Acoustical Society of America (Abstract)*, vol. 123, no. 5, 2008.
- [58] C. Suied, N. Bonneel, and I. Viaud-Delmon, “[Integration of auditory and visual information in fast recognition of realistic objects](#).” *Frontiers in Neuroscience* (Poster), 2008.
- [59] C. Suied, N. Bonneel, and I. Viaud-Delmon, “[Role of semantic vs spatial congruency in a bimodal go/no-go task](#).” 8th International Multisensory Research Forum (Poster), 2007.