

Curriculum vitae

George Drettakis

1. Education

September 1999: Habilitation à Diriger les Recherches, Thesis title: "*Du Rendu de Haute Qualité à l'interactivité*," University of Grenoble I.

February 1990-January 1994 :Ph.D. program in Computer Science at the University of Toronto. Completed January 1994, (conferred April 1994). Thesis title: "*Structured Sampling and Reconstruction of Illumination for Image Synthesis*"

September 1988 -January 1990: M.Sc. in Comp. Sci., Univ. of Toronto. Thesis title: "*Hierarchical Parallelism for a Global Illumination Algorithm*".

September 1984 -May 1988: B.Sc. (Ptychion) in Computer Science, University of Crete, Iraklion, Crete, Greece.

2. Professional experience

Collective/Management Responsibilities at INRIA

2009- : Member of the national "scientific prospects" committee for the "Cognitive Systems" research theme.

2009-2010: Member of the local Sophia-Antipolis "bureau du CP" which is the local committee discussing scientific policy of the INRIA centre, and in particular group creation and evaluation.

May 2004-October 2007: Member of the national level Council on Scientific and Technological Orientation for INRIA (<http://www.inria.fr/inria/cost/index.en.html>). I was in charge of the group on international relations. This involves coordinating and performing all the scientific evaluations (both competitive selection and a posteriori evaluation) of all the international collaboration programs of INRIA, including the INRIA Associated Teams program, and the ERCIM postdoctoral fellowship for INRIA.

August 2002-today: Group leader of the INRIA research group REVES (<http://www-sop.inria.fr/revs>). The REVES group was officially created in August 2002. The REVES group now has 3 permanent research staff (faculty equivalent), and on average has 2 to 4 Ph.D. students, 1-2 postdocs, 1- 2 research engineers and 1-2 support staff, for an overall size of 8-13 people. My responsibilities include overall responsibility for the research objectives and strategy of the group, overall and day-to-day management, budget, hiring, fund raising etc. The group was evaluated in the regular INRIA 4-year evaluation in May 2006, by an independent international panel of experts, with an excellent result.

May 2001- August 2002: leader of provisional research group "REVES". This is the required evaluation phase for the creation of new research groups.

July 2000-May 2001: I was in charge of a small sub group of iMAGIS at Sophia. My responsibilities included management of an independent research budget and the direction of a group of 4-6 doctoral, postdoctoral researchers and M.Sc. students.

Research Positions

December 2007- : *Directeur de Recherche (1ere classe) INRIA Sophia-Antipolis* Since December 2007 I hold the position of Senior Researcher (Directeur de Recherche 1ere class) at INRIA Sophia-Antipolis.

September 2003-December 2007: *Directeur de Recherche (2eme classe) INRIA Sophia-Antipolis*. I held the position of Researcher (Directeur de Recherche 2eme classe) at INRIA Sophia-Antipolis.

July 2000-September 2003: Chargé de Recherche INRIA Sophia-Antipolis. In July 2000 I moved to the Inria Center in the south of France (Inria Sophia-Antipolis), where, in addition to my regular research activities, I became a group leader (see above).

October 1995-July 2000 Chargé de Recherche INRIA Grenoble. I held the position of Chargé de Recherche (a permanent public researcher position in France) at the iMAGIS project in Grenoble. This includes the supervision of Masters and PhD level students, technology transfer activities and personal research.

1/94-8/95: ERCIM Postdoc. I spent 10 months at the iMAGIS/INRIA project in Grenoble France, working on global illumination and the treatment of complex environments with Dr. F. Sillion, 4 months in Barcelona, Spain with Dr. X. Pueyo working on error metrics for illumination, and 4 months at GMD, Germany, with Dr. S. Gibbs on the "ComWall" virtual reality tele-conferencing project.

Summer 1990: Summer Internship at Apple Computer, USA.

During the summer of 1990, I worked as a summer intern in the graphics groups of Apple Computers research division on a distributed graphics application, involving the design of a global illumination rendering environment distributed over a network of macintoshes.

7/86 - 7/88: User Interfaces/Interactive Graphics.

As an undergraduate, I participated in research projects at the Institute of Computer Science of the Foundation of Research and Technology - Hellas (FORTH), I worked on ESPRIT programs.

6/85 - 6/86: Greek UNIX. Also at FORTH I modified UNIX to support eight-bit greek characters, and participated in an automated Greek Office environment project.

Non-Research Employment

10/91 - 01/94: Graphics Lab Manager

As a part time lab manager, I was responsible for equipment purchases and maintenance, coordination of system administration and the overall coordination of a number of lab activities.

9/88 - 10/91: Graphics Lab System Administration

I worked as a part time system administrator for the Dynamic Graphics Project at the University of Toronto, which involved developing, maintaining and installing software and hardware.

Consulting

I performed the Greek UNIX modifications in summer 1986 for Datapac S.A. (Thessaloniki), and in summer 1987 for the Greek Ministry of Research and Technology.

3. Technology Transfer and External Funding

Patent and Technology Transfer

Patents on sound rendering. We have filed a US patent, together with N. Tsingos and E. Gallo on " Perfected device and method for the spatialization of sound ". US Patent number: 7356465, issued April 8th, 2008.

This technology has been successfully transferred via a licensing agreement to the games studio EdenGames, and has been used in the commercially available game TestDrive Unlimited, and in the upcoming title Alone in the Dark. A followup license of this technology has resulted in funding for a Ph.D. on sound synthesis for games. INRIA has initiated the process which will potentially lead to a startup company based on this audio technology.

I was one of the initial authors of the BRIGHT software, which was subsequently modified extensively by C. Soler and F. Sillion and transferred to the BIONATICS company for plant growth simulation.

We are in the process of transferring the Gabor Noise software.

European Projects

EU Project CROSSMOD: <http://www.crossmod.org> I was the coordinator of this FET Open IST project (basic research grant), with a total budget of 2.5 Million Euros (360Keuros EU contribution for REVES/INRIA). This 3 year project ran from December 2005-December 2008. The other partners are CNR (I), U Bristol (UK), CNRS (F), IRCAM (F), VUT (A) and U Erlangen (D). This is a multi-disciplinary project, including graphics, sound and neuroscience partners, on the use of audio-visual crossmodal perception for virtual environments. The project was evaluated successfully in December 2008, and led to numerous high-quality publications in graphics audio and neuroscience.

EU project CREATE: <http://www.cs.ucl.ac.uk/create> : UCL (GB - coordinator), le FHW (GR), RealViz, University of Cyprus, the CSTB (French government agency on construction and building standards, VR dept), PERCRO (I). This EU project (funding for REVES/INRIA 215Keuros over 3 years), (2002-2005) concentrated on the development of realistic rendering for augmented reality using the constructivist learning theory to facilitate learning and design in virtual environments. The two goal applications are cultural heritage in an educational context and urban planning for design and evaluation. A major demonstrator included a digital mockup of a central Square in Nice (Place Garibaldi), for the new city Tramway, which permitted the presentation of all the technologies developed in the project. This was used by the actual architects of the project and the city officials (see [11]).

EU project LTR/Open "SIMULGEN". I was overall coordinator of the first phase of the EU project SIMULGEN <http://www-imagis.imag.fr/SIMULGEN/SIMULGEN.html>, <http://iija.udg.es/Simulgen/>, in collaboration with the University of Girona and Erlangen. The goal of this project was the development of efficient and effective non-diffuse global illumination. The project passed the first phase evaluation and continued into the second phase until 2002. I was coordinator for iMAGIS until July 2000.

EU project LTR/Reactive "ARCADE" : <http://www-imagis.imag.fr/ARCADE/> I actively participated in this project under the responsibility of François Sillion. The partners were: IGD (RFA) and LightWork (GB). The goal of this project was to develop methods to make radiosity more usable.

Marie-Curie Postdoctoral Scholarships: These EU contracts cover the salary of the fellow and additional support for the laboratory. We obtained two such contract: M. Stamminger (2001), C. Daschbacher (2006).

INRIA or French National Projects

ARC "NIEVE" 2010, On navigation and Emotion in Virtual Reality, <http://www-sop.inria.fr/reves/NIEVE> with partners the IRCAM/CNRS group on audition and the INRIA group BUNRAKU. The first aspect of this work involves use of virtual reality for Phobia treatment.

PACA Regional Grant for Virtual Reality, 2005. Upgrade of the workbench installation (tracking and sound equipment), 50Keuros.

ARC "ARCHEOS" on NPR for Virtual Archeology <http://www-sop.inria.fr/reves/Archeos> : I coordinated an INRIA-financed action with the University Stendahl at Grenoble <http://www.u-grenoble3.fr/stendhal/homerica/> iMAGIS at l'Inria Rhône-Alpes, the FHW, and the ENS Ulm, which has a goal of using NPR rendering techniques for immersive systems. This project (60Keuros over 2 years) has a fundamentally mutli-disciplinary nature.

CSTB/PREDIT-CIFRE : We subcontracted a visualisation system for CSTB in the context of a French Transportation agency project PREDIT EVE-ViSIT, for a virtual window project including image and sound for evaluation of noise and visual disturbances for road construction. The virtual window is placed in a physical room specially built for this purpose by the INRETS government agency on transportation. This led to a CIFRE Ph.D. Scholarship for A. Reche (100 Keuros over 3 years).

COLOR CAVEa2 : We obtained a small local INRIA collaborative funding COLOR allowing the start of our collaboration with the CSTB, which led to the various other projects described above CREATE, PREDIT etc.

CNET/LRI (France Télécom R&D). I was jointly responsible with J.-D. Gascuel for the project "Télé média" financed by CNET (FT R&D) with LRI of université de Paris Sud, the CSTB and iMAGIS. We developed prototype "stations" for telepresence in the form of "wells".

I participated with M. Berthod and M. Mlouka for raising funds from the Regional PACA for the installation my group at Sophia (62Keuros), and for the workbench installation (123Keuros), both obtained in 2000.

Software donations: I have obtained agreements for software donations from RealViz and Alias|Wavefront.

Hardware donations: I have been awarded NVIDIA graphics cards donations (Academic Partnership).

Other donations: I have been awarded a research donation from Adobe (2010).

4. Supervision

Postdocs

C. Bosch (ERCIM, 2010-), A. Lagae (Visiting fellow, 2009-2010), P. Vangorp (INRIA, 2009-), S. Stavrakis (CROSSMOD postdoc, with N. Tsingos), 2007-2008, C. Dacshbacher (Marie-Curie postdoctoral fellow) May 2006- Sept. 2007, M. Stamminger (Marie-Curie postdoctoral fellow) Sep. 2001-March 2002, B. Walter, Oct. 98-Oct. 99. Co-supervision (with François Sillion) of postdoctoral fellow J-M. Hasenfratz (1998-1999) in the context of the ARCADE EU project.

Ph.D. student supervision

Current: P-Y Laffont (started 2009), E. Chapoulie, G. Chaurasia (started 2010).

N. Bonneel (CROSSMOD, 2006-2009), Marcio Cabral (INRIA fellowship, 2007-2010), C. Picard (EdenGames, 2006-2009, co-supervised with F. Faure and N. Tsingos). F. Duguet (2002-2005, Founder Altimesh), M-C Frasson (2002-2005, currently working for the INRIA startup KEENEO), A. Reche (2002-2005 consultant), X. Granier (1999-2001, currently a permanent INRIA researcher at IPARLA Bordeaux).

Co-supervision of theses (with Claude Puech): F. Durand (defence July 99, currently an associate professor at MIT.), C. Loscos (defended 1999, currently a Professor at the Univ. of Reims) , E. Paquette (defended July 2002, currently an assistant professor at ETS, Montréal), also with P. Poulin in the context of a "cotutelle" agreement.

Primary (administrative responsibility only) co-supervision: E. Gallo (supervised by N. Tsingos, 2004-2007).

DEA (Masters)

G. Chaurasia, E. Chapoulie (2009), T. Moeck (2007, with N. Tsingos), J. Etienne (2005), G. Bensa (2004), A. Reche, F Duguet, 2001, Céline Loscos, 1996 and Xavier Granier, winter 1997.

Software Engineers working in REVES

A. David (2010-) jointly with JC Lombardo, D. Grelaud (2007-2009), M. Asselot (2004, CREATE), G. Braconnier (2002-2004), E. Gallo (2002), co-supervision with N. Tsingos.

Interns

Supervision of internships N. Benigno, J. Othman, Y. Makrini (2010), E. Chapoulie, G. Chaurasia (2008), M.-C. Frasson (Sept. 1998-May 1999). Ecole Polytechnique internships X, JC Redoutay (summer 2001), F. Duguet (summer 2000); Ecole Normale Supérieure M. Glisse (summer 2001), P. Barla et J. Chanois (ESSI, 2002), P. Parla, T. Parle (ESSI, summer 2002), M. Negrel, N. Damm, C. Damiano, B. Ruiz (ESRA, summer 2002), R. Bayon ENSP Strasbourg (spring 2003).

Co-supervision of ERASMUS student Peter Kipfer with François Sillion (May-Sept. 1997). Co-supervision of Magistère student Lionel Villard with François Sillion (1996). Supervision of Christophe Salomon MST/Ingénieurs d'Informatique (summer 1994).

5. Teaching

I coordinate the course on graphics and sound (23h) given in the fall at the Ecole Centrale de Paris (since 2006); I teach 6 hours in that course. I coordinate the graphics course in the ENS/Lyon/UNSA Masters 1 programme since 2008 (6 hours), and offer one lecture in the Cannes Games Master's program. I coordinated the graphics course at the Masters SIC IV/IGMMV at the University of Nice since 2003, in which I taught 6 hours. I was coordinator of the (36h) Computer graphics course at the Ecole de Mines de Paris programme ISIA at Sophia-Antipolis, 2001-2007 (course given 6 times in that period, I taught 7-15 hours each time).

SIGGRAPH course 2002 (Inverse Lighting), SIGGRAPH course 2000 (Visibility 3D). Courses ESSI 2 (1 hrs), spring 2003; ESSI 3 (2 hrs); ESSI2 (4 hrs), spring 2002. Masters course DEA Computer Graphics (Université Grenoble I), Spring 2000 (3 hrs). ERSAMUS post-graduate, Sept. 1996 Barcelona (6 hrs).

6. Program Chairs and Committees

I am Technical Papers Chair of SIGGRAPH Asia 2010 (Seoul, December 2010).

I was programme co-chair of Eurographics 2008 with R. Scopigno. In 2008 the conference date was moved from September to April, and was held in Crete.

Co-chair (with H-P Seidel) of the Eurographics 2002 programme committee at Saabrucken.

Co-chair (with N. Max) of the programme committee of "9th Eurographics workshop on rendering" (EGWR), 1998, in Vienna.

Member of the programme committee of SIGGRAPH Asia 2009, SIGGRAPH 2010, 2009, 2005, 2006 and 1999 (US), Graphics Interface '99 (Canada), Eurographics conference 2004 and 2007, the EG workshop/Symposium on rendering 1995-07 (except 04 & 06), ACM SIGGRAPH Symposium on I3D Graphics and Games 2005, 2006 and 2007, Point Based Graphics symposium 2004 and 2005.

Referee for SIGGRAPH (1995-2008) and Eurographics (1994-07) conferences, the journals ACM Trans. on Graphics, IEEE Trans. on Graphics and Visualisation et Comp. Graphics Forum (among others).

I have been on the committee or an external examiner for several Ph.D.s in France and Europe (M. Stamminger, G. Fournier, G. Guennebaud, P. Reuter, C. Dachsbacher, C. Bosch, C. Andujar, G. Papagiannakis, B. Segovia, V. Forest, A. Bousseau, R. Vergne) and also Habilitation committees (M. Paulin, N. Holzschuch, S. Merillou, A. Lecuyer, M. Hachet).

I chair the Eurographics working group on Rendering (since 2009), and the Eurographics Awards Committee (since 2010).

7. Awards and Scholarships

Eurographics Outstanding Technical Achievement Award, 2007. https://www.eg.org/about/awards/winners/winner_drettakis
Eurographics Association Fellow, 2007.

Best Paper Award, VMV 2010, Best Paper Award, 2nd prize, Eurographics '93. University of Toronto Open Scholarship, 1988-1989. Connaught Scholarship, 1989-1990, 1990-1991, 1991-1992, Monica Ryckman Scholarship, 1992-1993, Un. of Toronto.

8. Languages

English, Greek, French, Spanish (moderate)

9. Publications

PDF or postscript files, and in many cases images and videos can be found at:

<http://www-sop.inria.fr/reves/publis/sortedPublisGD.php> (by type)

<http://www-sop.inria.fr/reves/Basilic/?author=Drettakis&title=&year=-1&display=list&x=0&y=0&pg=-1> (by year)

SIGGRAPH Papers

- [1] Ares Lagae, Sylvain Lefebvre, George Drettakis, Philip Dutré, Procedural Noise using Sparse Gabor Convolution, ACM Transactions on Graphics (SIGGRAPH Conference Proceedings), Volume 28, Number 3, August 2009
- [2] Nicolas Bonneel, George Drettakis, Nicolas Tsingos, Isabelle Viaud-Delmon, Doug James, Fast Modal Sounds with Scalable Frequency-Domain Synthesis, ACM Transactions on Graphics (SIGGRAPH Conference Proceedings), Volume 27, Number 3, August 2008
- [3] Carsten Dachsbacher, Marc Stamminger, George Drettakis, Frédo Durand, Implicit Visibility and Antiradiance for Interactive Global Illumination, ACM Transactions on Graphics (SIGGRAPH Conference Proceedings), Volume 26, Number 3, August 2007
- [4] Alex Reche, Ignacio Martin, George Drettakis, Volumetric Reconstruction and Interactive Rendering of Trees from Photographs, ACM Transactions on Graphics (SIGGRAPH Conference Proceedings), Volume 23, Number 3, July 2004
- [5] Nicolas Tsingos, Emmanuel Gallo, George Drettakis, Perceptual Audio Rendering of Complex Virtual Environments, ACM Transactions on Graphics (SIGGRAPH Conference Proceedings), Volume 23, Number 3, July 2004
- [6] Florent Duguet, George Drettakis, Robust Epsilon Visibility, Proceedings of ACM SIGGRAPH, pages 567 -- 575, July 2002
- [7] Marc Stamminger, George Drettakis, Perspective Shadow Maps, Proceedings of ACM SIGGRAPH, pages 557 -- 562, July 2002
- [8] Frédo Durand, George Drettakis, Joëlle Thollot, Claude Puech, Conservative Visibility Preprocessing Using Extended Projections, Proceedings of ACM SIGGRAPH, pages 239--248, 2000
- [9] Frédo Durand, George Drettakis, Claude Puech, The Visibility Skeleton: A Powerful and Multi-Purpose Global Visibility Tool, Proceedings of ACM SIGGRAPH, pages 89 -- 100, Aug 1997
- [10] George Drettakis, François Sillion, Interactive Update of Global Illumination Using A Line-Space Hierarchy, Proceedings of ACM SIGGRAPH, pages 57 -- 64, Aug 1997
- [11] François Sillion, George Drettakis, Feature-based Control of Visibility Error: A Multi-Resolution Clustering Algorithm for Global Illumination, Proceedings of ACM SIGGRAPH, pages 145--152, Aug 1995
- [12] George Drettakis, Eugene Fiume, A Fast Shadow Algorithm for Area Light Sources Using Backprojection, Proceedings of ACM SIGGRAPH, pages 223 -- 230, July 1994

Journal Papers

- [13] Marcio Cabral, Nicolas Bonneel, Sylvain Lefebvre, George Drettakis, Relighting Photographs of Tree Canopies, IEEE Transactions on Visualization and Computer Graphics, Volume Pre Print, 2011
- [14] Pierre Bénard, Ares Lagae, Peter Vangorp, Sylvain Lefebvre, George Drettakis, Joëlle Thollot, A Dynamic Noise Primitive for Coherent Stylization, Computer Graphics Forum (Proceedings of the Eurographics Symposium on Rendering), Volume 29, Number 4, jun 2010
- [15] Nicolas Bonneel, Clara Suied, Isabelle Viaud-Delmon, George Drettakis, Bimodal perception of audio-visual material properties for virtual environments, ACM Transactions on Applied Perception, 2010
- [16] Nicolas Bonneel, Sylvain Paris, Michiel van de Panne, Frédo Durand, George Drettakis, Single Photo Estimation of Hair Appearance, Computer Graphics Forum (Proceedings of the Eurographics Symposium on Rendering), 2009
- [17] Marcio Cabral, Sylvain Lefebvre, Carsten Dachsbacher, George Drettakis, Structure Preserving Reshape for Textured Architectural Scenes, Computer Graphics Forum (Proceedings of the Eurographics conference), 2009
- [18] Yue Dong, Sylvain Lefebvre, Xin Tong, George Drettakis, Lazy Solid Texture Synthesis , Computer Graphics Forum (Proceedings of the Eurographics Symposium on Rendering), 2008
- [19] George Drettakis, Maria Roussou, Alex Reche, Nicolas Tsingos, Design and Evaluation of a Real-World Virtual Environment for Architecture and Urban Planning, Presence: Teleoperators & Virtual Environments, MIT Press, 2007
- [20] Xavier Granier, George Drettakis, A Final Reconstruction Framework for an Unified Global Illumination Algorithm, ACM Transactions on Graphics, Volume 23, Number 2, April 2004
- [21] Florent Duguet, George Drettakis, Flexible Point-Based Rendering on Mobile Devices, IEEE Computer Graphics and Applications, Volume 24, Number 4, July-August 2004
- [22] Frédo Durand, George Drettakis, Claude Puech, The 3D Visibility Complex, ACM Transactions on Graphics, Volume 21, Number 2, April 2002

- [23] Céline Loscos, George Drettakis, Luc Robert, Interactive Virtual Relighting of Real Scenes, IEEE Transactions on Visualization and Computer Graphics, Volume 6, Number 3, July-September 2000
- [24] Marc Stamminger, Annette Scheel, Xavier Granier, Frederic Perez-Cazorla, George Drettakis, François Sillion, Efficient Glossy Global Illumination with Interactive Viewing, Computer Graphics Forum, Volume 19, Number 1, pages 13--25, Mar 2000
- [25] Frédo Durand, George Drettakis, Claude Puech, Fast and Accurate Hierarchical Radiosity Using Global Visibility, ACM Transactions on Graphics, Apr 1999
- [26] George Drettakis, Eugene Fiume, Structured Penumbra Irradiance Computation, IEEE Transactions on Visualization and Computer Graphics, Volume 2, Number 4, Dec 1996

Referred Conference Papers

- [27] Nicolas Bonneel, Michiel van de Panne, Sylvain Lefebvre, George Drettakis, Proxy-Guided Texture Synthesis for Rendering Natural Scenes, Proceedings of Vision Modeling and Visualization, 2010
- [28] David Grelaud, Nicolas Bonneel, Michael Wimmer, Manuel Asselot, George Drettakis, Efficient and Practical Audio-Visual Rendering for Games using Crossmodal Perception, Proceedings of the ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games, 2009
- [29] Cécile Picard, François Faure, George Drettakis, Paul G. Kry, A Robust And Multi-Scale Modal Analysis For Sound Synthesis , Proceedings of the International Conference on Digital Audio Effects, sept 2009
- [30] Thomas Moeck, Nicolas Bonneel, Nicolas Tsingos, George Drettakis, Isabelle Viaud-Delmon, David Aloza, Progressive Perceptual Audio Rendering of Complex Scenes, Proceedings of the ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games, April 2007
- [31] George Drettakis, Nicolas Bonneel, Carsten Dachsbacher, Sylvain Lefebvre, Michael Schwarz, Isabelle Viaud-Delmon, An Interactive Perceptual Rendering Pipeline using Contrast and Spatial Masking, Rendering Techniques (Proceedings of the Eurographics Symposium on Rendering), June 2007
- [32] Kyle Hegeman, Simon Premoze, Michael Ashikhmin, George Drettakis, Approximate Ambient Occlusion For Trees, Proceedings of the ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games, March 2006
- [33] Pau Estalella, Ignacio Martin, George Drettakis, Dani Tost, A GPU-driven Algorithm for Accurate Interactive Reflections on Curved Objects, Rendering Techniques (Proceedings of the Eurographics Symposium on Rendering), June 2006
- [34] Maria Roussou, George Drettakis, Can VR be Useful and Usable in Real-World Contexts? Observations from the Application and Evaluation of VR in Realistic Usage Conditions, Proceedings of the International Conference on Virtual Reality, July 2005
- [35] Pau Estalella, Ignacio Martin, George Drettakis, Dani Tost, Olivier Devillers, Frédéric Cazals, Accurate Interactive Specular Reflections on Curved Objects, Proceedings of Vision Modeling and Visualization, 2005
- [36] Florent Duguet, George Drettakis, Daniel Girardeau-Montaut, Jean-Luc Martinez, Francis Schmitt, A Point-Based Approach for Capture, Display and Illustration of Very Complex Archeological Artefacts, Proceedings of the International Symposium on Virtual Reality, Archeology and Cultural Heritage, December 2004
- [37] George Drettakis, Maria Roussou, Nicolas Tsingos, Alex Reche, Emmanuel Gallo, Image-based Techniques for the Creation and Display of Photorealistic Interactive Virtual Environments, Proceedings of the Eurographics Symposium on Virtual Environments, June 2004
- [38] Maria Roussou, George Drettakis, Photorealism and Non-Photorealism in Virtual Heritage Representation, Proceedings of the International Symposium on Virtual Reality, Archeology and Cultural Heritage, November 2003
- [39] Pierre Poulin, Marc Stamminger, Francois Duranleau, Marie-Claude Frasson, George Drettakis, Interactive Point-based Modeling of Complex Objects from Images, Proceedings of Graphics Interface, June 2003
- [40] Alex Reche, George Drettakis, View Dependent Layered Projective Texture Maps, Proceedings of Pacific Graphics, October 2003
- [41] Eric Paquette, Pierre Poulin, George Drettakis, The Simulation of Paint Cracking and Peeling, Proceedings of Graphics Interface, 2002
- [42] Bruce Walter, George Drettakis, Donald Greenberg, Enhancing and Optimizing the Render Cache, Proceedings of the Eurographics Workshop on Rendering, June 2002
- [43] Oliver Deussen, Carsten Colditz, Marc Stamminger, George Drettakis, Interactive visualization of complex plant ecosystems, Proceedings of the IEEE Visualization Conference, October 2002
- [44] Marc Stamminger, George Drettakis, Interactive Sampling and Rendering for Complex and Procedural Geometry, Rendering Techniques (Proceedings of the Eurographics Workshop on Rendering), 2001

- [45] Xavier Granier, George Drettakis, Incremental Updates for Rapid Glossy Global Illumination, Proceedings of the Eurographics conference, 2001
- [46] Eric Paquette, Pierre Poulin, George Drettakis, Surface Aging by Impacts, Proceedings of Graphics Interface, June 2001
- [47] David Bourguignon, Marie-Paule Cani, George Drettakis, Drawing for Illustration and Annotation in 3D, Proceedings of the Eurographics conference, Volume 20, pages 114--122, sep 2001
- [48] Xavier Granier, George Drettakis, Bruce Walter, Fast Global Illumination Including Specular Effects, Rendering Techniques (Proceedings of the Eurographics Workshop on Rendering), pages 47 -- 59, 2000
- [49] Xavier Granier, George Drettakis, Controlling Memory Consumption of Hierarchical Radiosity with Clustering, Proceedings of Graphics Interface, pages 58--65, June 1999
- [50] Marc Stamminger, Annette Scheel, Xavier Granier, Frederic Perez-Cazorla, George Drettakis, François Sillion, Efficient Glossy Global Illumination with Interactive Viewing, Proceedings of Graphics Interface, pages 50--57, June 1999
- [51] Jean-Marc Hasenfratz, Cyrille Domez, François Sillion, George Drettakis, A Practical Analysis of Clustering Strategies for Hierarchical Radiosity, Computer Graphics Forum (Proceedings of the Eurographics conference), Number 18(3), pages 221-232, Sep 1999
- [52] Bruce Walter, George Drettakis, Steven Parker, Interactive Rendering using the Render Cache, Rendering Techniques (Proceedings of the Eurographics Workshop on Rendering), Volume 10, pages 235--246, Jun 1999
- [53] Céline Loscos, Marie-Claude Frasson, George Drettakis, Bruce Walter, Xavier Granier, Pierre Poulin, Interactive Virtual Relighting and Remodeling of Real Scenes, Rendering Techniques (Proceedings of the Eurographics Workshop on Rendering), Volume 10, pages 235--246, Jun 1999
- [54] Eric Paquette, Pierre Poulin, George Drettakis, A Light Hierarchy for Fast Rendering of Scenes with Many Lights, Computer Graphics Forum (Proceedings of the Eurographics conference), pages 63--74, Sep 1998
- [55] François Sillion, George Drettakis, Benoit Bodelet, Efficient Impostor Manipulation for Real-Time Visualization of Urban Scenery, Computer Graphics Forum (Proceedings of the Eurographics conference), Volume 16, pages 207--218, Sep 1997
- [56] Katja Daubert, Hartmut Schirmacher, François Sillion, George Drettakis, Hierarchical Lighting Simulation for Outdoor Scenes, Proceedings of the Eurographics Workshop on Rendering, Jun 1997
- [57] Frédo Durand, George Drettakis, Claude Puech, The 3D Visibility Complex: a unified data-structure for global visibility of scenes of polygons and smooth objects, Proceedings of the Canadian Conference on Computational Geometry, Aug 1997
- [58] Céline Loscos, George Drettakis, Interactive High-Quality Soft Shadows in Scenes with Moving Objects, Proceedings of the Eurographics conference, Jun 1997
- [59] George Drettakis, Luc Robert, Sylvain Bugnoux, Interactive Common Illumination for Computer Augmented Reality, Proceedings of the Eurographics Workshop on Rendering, Jun 1997
- [60] George Drettakis, François Sillion, Accurate Visibility and Meshing Calculations for Hierarchical Radiosity, Rendering Techniques (Proceedings of the Eurographics Workshop on Rendering), pages 269--279, Jun 1996
- [61] Frédo Durand, George Drettakis, Claude Puech, The 3D Visibility Complex, a new approach to the problems of accurate visibility, Rendering Techniques (Proceedings of the Eurographics Workshop on Rendering), pages 245--257, Jun 1996
- [62] Frédéric Cazals, George Drettakis, Claude Puech, Filtering, Clustering and Hierarchy Construction: a New Solution for Ray Tracing Very Complex Environments, Proceedings of the Eurographics conference, September 1995
- [63] François Sillion, George Drettakis, Cyril Soler, A Clustering Algorithm for Radiance Calculation In General Environments, Rendering Techniques (Proceedings of the Eurographics Workshop on Rendering), Number 6, June 1995
- [64] George Drettakis, Simplifying the Representation of Radiance from Multiple Emitters, Proceedings of the Eurographics Workshop on Rendering, juin 1994
- [65] Nicolas Holzschuch, François Sillion, George Drettakis, An Efficient Progressive Refinement Strategy for Hierarchical Radiosity, Proceedings of the Eurographics Workshop on Rendering, june 1994
- [66] George Drettakis, Eugene Fiume, Accurate, Consistent Reconstruction of Illumination Functions Using Structured Sampling, Computer Graphics Forum (Proceedings of the Eurographics conference), Volume 12(3), Sept 1993
- [67] George Drettakis, Eugene Fiume, Concrete Computation of Global Illumination Using Structured Sampling, Proceedings of the Eurographics Workshop on Rendering, May 1992
- [68] George Drettakis, Eugene Fiume, Structure-directed Sampling, Reconstruction and Data-Representation for Global Illumination Algorithms, Photorealistic Rendering in Computer Graphics (Proceedings of the Eurographics Workshop on Rendering), May 1991

[69] George Drettakis, Eugene Fiume, Tightly-Coupled Multi-Processing for a Global Illumination Algorithm, Proceedings of the Eurographics conference, 1990

Referred Workshop Papers

[70] Christian Linz, Alex Reche, George Drettakis, Marcus Magnor, Effective Multi-resolution Rendering and Texture Compression for Captured Volumetric Trees, Proceedings of the Eurographics Workshop on Natural Phenomena, September 2006

[71] George Drettakis, Maria Roussou, Real-World VR Applications and Computer Graphics/Sound Research: A Synergy for the Future, Proceedings of the Intuition Workshop on Virtual Reality, November 2005

[72] David Bourguignon, Marie-Paule Cani, Raphaëlle Chaine, George Drettakis, Relief: A Modeling by Drawing Tool, Proceedings of the Eurographics Workshop on Sketch-Based Interfaces, August 2004

[73] Céline Loscos, George Drettakis, Low-Cost Photometric Calibration for Interactive Relighting, Proceedings of the First French-British International Workshop on Virtual Reality, Jul 2000

[74] Frédo Durand, George Drettakis, Claude Puech, The Visibility Skeleton, Proceedings of the European Workshop on Computational Geometry, Mar 1998

[75] Panos Constantopoulos, George Drettakis, Eleni Petra, Maria Theodoridou, Yannis Yeorgaroudakis, Multimedia Office System Interface Design using a UIMS, Proceedings of IFIP WG 8.4 on OIS: The Design Process, August 1988

Posters, Sketches and Others

[76] Florent Duguet, Carlos Henandez Esteban, George Drettakis, Francis Schmitt, Level of Detail Continuum for Huge Geometric Data, Poster at ACM SIGGRAPH, July 2005

[77] Maria Roussou, George Drettakis, Nicolas Tsingos, Alex Reche, Emmanuel Gallo, A User-Centered Approach on Combining Realism and Interactivity in Virtual Environments, Poster in the Proceedings of IEEE Virtual Reality, pages 251-252, March 2004

[78] Céline Loscos, Hila Ritter Widenfeld, Maria Roussou, Alexandre Meyer, Franco Tecchia, Emmanuel Gallo, George Drettakis, Alex Reche, Nicolas Tsingos, Yiorgos Chrysanthou, Luc Robert, Massimo Bergamasco, Andrea Dettori, Souheil Soubra, The CREATE Project: Mixed Reality for Design, Education, and Cultural Heritage with a Constructivist Approach, Proceedings of the IEEE and ACM International Symposium on Mixed and Augmented Reality, October 2003

[79] Céline Loscos, Marie-Claude Frasson, George Drettakis, Interactive Virtual Relighting and Remodeling of Real Scenes, Poster at the Second IEEE and ACM International Workshop on Augmented Reality, Oct 1999

[80] Frédo Durand, George Drettakis, Claude Puech, Visibility Driven Hierarchical Radiosity, Siggraph technical sketch, Jul 1998

[81] Céline Loscos, George Drettakis, Luc Robert, Interactive Modification of Real and Virtual Lights for Augmented Reality, Siggraph technical sketch, Jul 1998

[82] Panos Constantopoulos, George Drettakis, Eleni Petra, Maria Theodoridou, Yannis Yeorgaroudakis, Iterative Design of User Interfaces for an Office System using a UIMS, Proceedings of the EURINFO conference, May 1988

Theses

[83] George Drettakis, Du Rendu de Haute Qualité à l'interactivité, PhD thesis from Habilitation Université Joseph Fourier (Grenoble I), Sep 1999

[84] George Drettakis, Structured Sampling and Reconstruction of Illumination for Image Synthesis, PhD thesis from University of Toronto, January 1994

[85] George Drettakis, Hierarchical Parallelism for a Global Illumination Algorithm, Master thesis from University of Toronto, January 1990

Books Edited

[86] George Drettakis, Roberto Scopigno, Computer Graphics Forum (Proceedings of the Eurographics Conference), Eurographics, Volume 27(2), April 2008

- [87] George Drettakis, Hans-Peter Seidel, Computer Graphics Forum (Proceedings of the Eurographics conference), Eurographics, Volume 3 (21), September 2002
- [88] George Drettakis, Nelson Max, Rendering Techniques (Proceeding Eurographics Workshop on Rendering), Springer Verlag, Wien, 1998

Book Chapters

- [89] Marc Stamminger, George Drettakis, Carsten Dachsbacher, Perspective Shadow Maps, Game Programming Gems IV, Charles River Media, 2003

Larger Public Publications

- [90] Nicolas Tsingos, Emmanuel Gallo, George Drettakis, Breaking the 64 spatialized sources barrier, Gamasutra Audio Resource Guide 2003, May 2003
- [91] George Drettakis, François Sillion, BRIGHT - An Efficient Lighting Simulation System for Complex Scenes, ERCIM News, October 1997

French National Publications

- [92] Alex Reche, George Drettakis, Textures projectives à calques dépendantes du point de vue, Actes des journées de l'AFIG, December 2003
- [93] Xavier Granier, George Drettakis, Bruce Walter, Simulation rapide de l'éclairage global, Actes des journées de l'AFIG, 2000
- [94] Céline Loscos, George Drettakis, Algorithme incrémental de mise à jour du maillage de discontinuité pour les environnements dynamiques, Actes des journées de l'AFIG, november 1996

Technical Reports

- [95] Nicolas Bonneel, Michiel van de Panne, Sylvain Lefebvre, George Drettakis, Proxy-Guided Texture Synthesis for Rendering Natural Scenes, Technical Report RR-7298, INRIA, Number RR-7298, May 2010
- [96] Florent Duguet, Carlos Henandez Esteban, George Drettakis, Francis Schmitt, Level of Detail Continuum for Huge Geometric Data, Technical Report 5552, INRIA Research Report, Number 5552, April 2005
- [97] George Drettakis, Maria Roussou, Manuel Asselot, Alex Reche, Alexandre Olivier-Mangon, Nicolas Tsingos, Franco Tecchia, Participatory Design and Evaluation of a Real-World Virtual Environment for Architecture and Urban Planning, Technical Report 5479, INRIA Research Report, Number 5479, January 2005
- [98] Nicolas Tsingos, Emmanuel Gallo, George Drettakis, Perceptual Audio Rendering of Complex Virtual Environments, Technical Report RR-4734, INRIA, Number RR-4734, Feb 2003
- [99] Florent Duguet, George Drettakis, Flexible Point-Based Rendering on Mobile Devices, Technical Report RR-4833, INRIA, Number RR-4833, May 2003
- [100] Alex Reche, George Drettakis, View-Dependent Layered Projective Texture Maps, Technical Report , INRIA, July 2003
- [101] Céline Loscos, Marie-Claude Frasson, George Drettakis, Bruce Walter, Xavier Granier, Pierre Poulin, Interactive Virtual Relighting and Remodeling of Real Scenes, Technical Report 230, INRIA, Number 230, April 1999
- [102] Céline Loscos, George Drettakis, Luc Robert, Interactive Virtual Relighting of Real Scenes, Technical Report RT-0225, INRIA, Number RT-0225, November 1998
- [103] George Drettakis, Dionysios Pnevmatikatos, Christos Georgis, The ACHILLES Environment: A Set of Powerful Tools for Creating User Interfaces, Technical Report , ICS/FORTH (formerly Research Center of Crete), December 1988
- [104] George Drettakis, Vassilis Prevelakis, Modifying Unix to Support 8-bit characters, Technical Report , ICS/FORTH (formerly Research Center of Crete), October 1987

Audiovisual Publications

- [105] George Drettakis, François Sillion, Interactive Update of Global Illumination Using Line-Space Hierarchy, *Video Proceedings of ACM SIGGRAPH*, August 1997

- [106] Frédo Durand, George Drettakis, Claude Puech, 3D Visibility made visibly simple: an introduction to the Visibility Skeleton, *Video presented at the ACM Symposium on Computational Geometry*, 1997
- [107] Frédo Durand, George Drettakis, Claude Puech, The Visibility Skeleton: A Powerful and Efficient Multi-Purpose Global Visibility Tool, *Video Proceedings of ACM SIGGRAPH*, August 1997
- [108] G. Drettakis (editor/producer), SIGGRAPH Asia Technical Papers trailer.