

Jan Kautz

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University College London
Department of Computer Science
Malet Place
London WC1E 6BT, UK

Phone: +44 (0)20 7679 3249
Fax: +44 (0)20 7387 1397
EMail: j.kautz@cs.ucl.ac.uk
Web: www.cs.ucl.ac.uk/staff/J.Kautz



CURRENT POSITION

University College London, UK, Professor of Visual Computing, since October 2012

University College London, UK, Associate Professor (Reader), October 2011 – Sept. 2012

University College London, UK, Associate Professor (Senior Lecturer), October 2009 – Sept. 2011

University College London, UK, Assistant Professor (Lecturer), March 2006 – September 2009

Visual computing research (content creation, image/video analysis & processing, image synthesis).

Teaching at graduate and undergraduate level.

Supervision of students (all levels).

PREVIOUS POSITIONS

Massachusetts Institute of Technology, USA, Post-Doctoral Researcher, July 2003 – February 2006

Working on *Material Editing* and *Realistic, Real-Time Rendering* with Prof. Frédo Durand.

Max-Planck-Institut für Informatik, Germany, PhD Student, September 1999 – July 2003

PhD Thesis: *Realistic, Real-Time Shading and Rendering of Objects with Complex Materials*.

KEY ACHIEVEMENTS

Over 75 publications, 16 at ACM SIGGRAPH.

h-index of 29; total citation count of >3300.

£1.5M in funding over the past six years.

Promoted to Full Professor after six years.

Research transferred to Microsoft's DirectX, HDR software packages, Adobe Lightroom & Camera Raw.

EDUCATION

09/1999 – 04/2003	PhD Student, Max-Planck-Institut für Informatik, Saarbrücken, Germany Received PhD (summa cum laude)
05/1998 – 09/1999	Graduate Student, University of Waterloo, Canada Received MMath
10/1993 – 01/1999	Student, University Erlangen-Nürnberg, Germany Received Diploma in Computer Science

AWARDS

Paper Awards

Received a *Best Paper Honorable Mention Award* for our work on PanoInserts at CHI 2013.

Received the *Industrial Impact Award* for our work on PatchMatch Belief Propagation at BMVC 2012.

Eurographics Young Researcher Award

Received the Eurographics Young Researcher Award 2007 in recognition of outstanding contributions to computer graphics.

Eduard-Martin-Award

Received the Eduard-Martin Award 2004 (PhD award of the Saarland University).

Otto-Hahn-Medal

Received the Otto-Hahn Medal 2004 of the Max-Planck Society for outstanding young researchers.

DFG Emmy-Noether Fellowship

Received a DFG (German Research Foundation) Post-Doctoral Emmy-Noether Fellowship for the academic year 2004/2005.

DAAD Fellowship

Received a DAAD (German Academic Exchange Service) Post-Doctoral Fellowship for the academic year 2003/2004.

NVIDIA Fellow

Received an NVIDIA Fellowship for the academic year 2002 (first fellowship granted to someone outside the US).

FUNDING

User-centric Video Processing, (Intel Visual Computing Institute, 2012-2015, £120K)
CoI, research on video processing.

Synthesizing and Editing Photo-Realistic Visual Objects, (EPSRC, 2011-2014, £537K)
PI, research project on synthesizing realistic objects.

On-site Processing of Digital Film (The Foundry & EPSRC, 2011-2014, £105K).
PI, EngD studentship.

Rendering Research (Samsung, 2010-2011, £100K).
PI, collaborative research project.

Being in Augmented Multi-Modal Naturally-Networked Gatherings (EU, 2010-2014, £1.5M total).
CoI, EU integrated project.

Automatic Enhancement of Digital Photographs (Microsoft, 2009-2012, £69K).
PI, PhD scholarship.

Artist-Enabled Digital Reconstruction (Framestore & EPSRC, 2009-2013, £105K).
PI, EngD studentship.

Lighting Technology for Next Generation Games and CGI (BERR-TSB, 2008-2010, £525K total).
CoI, together with Geomerics Ltd.

Real-Time Global Illumination (EPSRC, 2007-2010, £210K).
PI, research project on global illumination.

Video-Based, Dynamic Environments (BBC & EPSRC, 2006-2010, £115K).
PI, EngD studentship.

TEACHING

Current Courses

Co-teaching *Advanced Modelling, Rendering and Animation* (Spring 2013).

Co-teaching *3-D Computer Graphics* (Fall 2012).

Co-teaching *Systems Engineering Project* (Fall 2012).

Previous Courses

- Co-teaching *Advanced Modelling, Rendering and Animation* (Spring 2007–2012).
- Co-teaching *Networks, Databases and Graphics* (Spring 2007–2012).
- Teaching *3-D Computer Graphics* (Fall 2006–2011).
- Invited course on *Real-Time Shading* at the Helsinki University of Technology (2004).
- Co-taught the course *Interactive Rendering and Animation* at the Saarland University (2001).

SUPERVISION

Research Fellows

- Neill Campbell, *Visual Synthesis*, September 2011 – ongoing, Research Associate, UCL, London.
- Kartic Subr, *Monte-Carlo Methods*, January 2011 – December 2012, Research Associate, UCL, London.
- Insu Yu, *Realistic Rendering*, April 2009 – January 2012, Research Assistant, UCL, London.
- Andrew Cox, *Realistic Rendering*, October 2008 – September 2010, Research Assistant, UCL, London.
- Min H. Kim, *HDR and Color*, February 2010 – July 2010, Research Associate, UCL, London.

PhD Students

- Daniyar Turmukhambetov, *Synthesis of Photo-Realistic Objects*, September 2011 – , PhD, UCL, London.
- Dan Calian, *Real-Time Rendering*, September 2011 – ongoing, EngD, UCL & Disney Interactive, London.
- Yotam Doron, *On-site Processing of Digital Film*, January 2011 – ongoing, EngD, UCL, London.
- Fabrizio Pece, *BEAMING*, February 2010 – ongoing, PhD, UCL, London.
- Frederic Besse, *Computational Photography*, September 2009 – ongoing, PhD, UCL, London.
- Fabian Wanner, *Set Reconstruction*, September 2009 – ongoing, EngD, UCL & Framestore, London.
- James Tompkin, *Exploring Sparse, Unstructured Video Collections of Places*, September 2006 – November 2012, EngD, UCL & BBC, London.
- Min H. Kim, *High-Fidelity Color Reproduction for High-Dynamic-Range Imaging*, September 2006 – January 2010, PhD, UCL, London.

Master's Students

- Nola Perrier, *Relighting for 2D Copy & Paste*, 01/2012 – 09/2012, Master Thesis, UCL, London.
- Bongjin Koo, *Real-time Anti-aliasing*, 01/2012 – 09/2012, Master Thesis, UCL, London.
- Long Phoc, *Physically-based Rendering*, 01/2011 – 09/2011, Master Thesis, UCL, London.
- Alexander Gerveshi, *Volumetric Editing of Shadows*, 01/2011 – 09/2011, Master Thesis, UCL, London.
- Henrik Lieng, *Multi-Perspective Photographs*, 01/2011 – 09/2011, Master Thesis, UCL, London.
- Richard Wright, *Time-Lapse Photography*, 01/2011 – 09/2011, Master Thesis, UCL, London.
- Belinda Wong, *Transitions via Warping*, 01/2011 – 09/2011, Master Thesis, UCL, London.
- Philippe Levieux, *Dynamic Light Fields*, 01/2011 – 09/2011, Master Thesis, UCL, London.
- Richard Jenkin, *Human Video Characters*, 09/2010 – 04/2011, Master Thesis, UCL, London.
- Sam Birley, *HDR for Games*, 11/2009 – 10/2010, Master Thesis, UCL, London.
- Peter Campton, *Interactive Wave Simulation*, 11/2009 – 09/2010, Master Thesis, UCL, London.
- Dan Cristian Cananau, *Object Relighting*, 11/2009 – 09/2010, Master Thesis, UCL, London.
- Liao Gao, *Making Photo Collections Consistent*, 11/2009 – 09/2010, Master Thesis, UCL, London.
- Michael Kargas, *GPU Volume Rendering*, 11/2009 – 09/2010, Master Thesis, UCL, London.
- Javier Meseguer De Paz, *Interactive Hair Rendering*, 11/2009 – 09/2010, Master Thesis, UCL, London.
- Jonathan Sacramento, *Snow Rendering*, 11/2009 – 09/2010, Master Thesis, UCL, London.
- Eleni Maria Stea, *GPU Ray-Tracing*, 11/2009 – 09/2010, Master Thesis, UCL, London.
- Antonio Garcia Casteñada, *Fluorescent Materials*, 11/2008 – 09/2009, Master Thesis, UCL, London.

Fabrizio Pece, *HDR Imaging for Dynamic Scenes*, 11/2008 – 09/2009, Master Thesis, UCL, London.
 Mahdi Mohammad Bagher, *Screen-Space Shadows*, 11/2008 – 09/2009, Master Thesis, UCL, London.
 Frederic Besse, *Video Time-Fronts*, 11/2007 – 09/2008, Master Thesis, UCL, London.
 Radek Cirmirakis, *Interactive Hair Styling*, 11/2007 – 09/2008, Master Thesis, UCL, London.
 Harsha Sri-Narayana, *PRT for Dynamic Models*, 11/2006 – 09/2007, Master Thesis, UCL, London.
 Feng Liang, *3D Objects from Visual Hulls*, 11/2006 – 09/2007, Master Thesis, UCL, London.
 Zhuo Yao Lu, *Shading Dynamic Models*, 11/2006 – 09/2007, Master Thesis, UCL, London.
 Carsten Fuchs, *Real-Time Lighting*, 04/2003 – 02/2005, Diploma Thesis, Universität des Saarlandes.
 Thomas Annen, *Spherical Harmonic Gradients*, 10/2003 – 09/2004, Master Thesis, Universität des Saarlandes.
 Hendrik Kriebel, *Dynamic Lightfields*, 03/2003 – 06/2004, Diploma Thesis, Universität des Saarlandes.

Bachelor's Students

Nazerke Safina, *Painting with Light*, 11/2012 – 04/2013, Undergraduate Thesis, UCL, London.
 Rui Shi, *Digital Weathering Effects*, 11/2007 – 04/2008, Undergraduate Thesis, UCL, London.
 Kevin Zeng, *Real-Time Reflections*, 11/2007 – 04/2008, Undergraduate Thesis, UCL, London.
 Joe Tsoi, *Fast Filtered Environment Mapping*, 11/2006 – 04/2007, Undergraduate Thesis, UCL, London.
 Andrew Cox, *Volume-Based Graphics*, 09/2006 – 04/2007, Undergraduate Thesis, UCL, London.
 Christian Schmalz, *Hair Rendering*, 10/2002 – 11/2003, Undergraduate Thesis, Universität des Saarlandes.
 Carsten Fuchs, *Point-Based Rendering*, 09/2002 – 03/2003, Undergraduate Thesis, Universität des Saarlandes.
 Martin Sunkel, *Foam Rendering*, 08/2003 – 07/2004, Undergraduate Thesis, Universität des Saarlandes.

PhD Examiner

Erik Sintorn, *Efficient Real-Time Visibility Testing*, Chalmers University of Technology, 2013.
 Thomas Engelhardt, *Efficient From-Point Visibility for Global Illumination in Scenes with Participating Media*, Karlsruher Institut für Technologie, 2013.
 João Renato Kavamoto Fayad, *3D Deformation Models for Non-rigid Structure from Motion*, Queen Mary, 2012.
 Martin Eisemann, *Error-concealed Image-based Rendering*, Technische Universität Braunschweig, 2011.
 Piotr Dubla, *Interactive Global Illumination on the CPU*, University of Warwick, 2011.
 Jania Aghajanian, *Patch-based models for visual object classes*, University College London, 2011.
 Zhao Dong, *Visually Pleasing Real-time Global Illumination Rendering for Fully-dynamic Scenes*, Universität des Saarlandes, 2011.
 Johannes Hanika, *Spectral Light Transport Simulation using a Precision-based Ray Tracing Architecture*, Universität Ulm, 2011.
 Tunç Aydın, *Human Visual System Models in Computer Graphics*, Universität des Saarlandes, 2010.
 Jesper Mortensen, *Virtual Light Fields for Global Illumination in Computer Graphics*, University College London, 2010.
 Timo Kunkel, *Color Appearance Modelling for Digital Imaging Pipelines*, University of Bristol, 2010.
 David Coulthurst, *Ray Tracing Methods for Hybrid Global Illumination Algorithms*, University of Bristol, 2010.
 Bert De Decker, *Video Manipulation Using External Cues*, Hasselt University, 2010.
 Xueni Pan, *Experimental Studies of the Interaction between People and Virtual Humans with a Focus on Social Anxiety*, University College London, 2009.
 Tobias Ritschel, *Perceptually-motivated, Interactive Rendering and Editing of Global Illumination*, Universität des Saarlandes, 2009.

Gero Müller, *Data-Driven Methods for Compression and Editing of Spatially Varying Appearance*, Universität Bonn, 2009.

Thomas Annen, *Efficient Shadow Map Filtering*, Universität des Saarlandes, 2008.

Erik Hubo, *Compression Techniques for Massive Point Set Surfaces, with Application to Ray Tracing*, Hasselt University, 2007.

Jan Meseth, *Towards Predictive Rendering in Virtual Reality*, Universität Bonn, 2007.

RESEARCH VISITS

Microsoft Research, Internship, July–October 2001

Worked on *Precomputed Radiance Transfer* with Peter-Pike Sloan and John Snyder.

University of British Columbia, Vancouver, Visitor, March 2001

Worked on *Real-Time Bump Map Synthesis* with Wolfgang Heidrich.

PROFESSIONAL ACTIVITIES

Program Chair

Eurographics 2014 (co-chair with Bruno Levy).

European Conference on Visual Media Production 2012.

Pacific Graphics 2011 (co-chair with Ming Lin, Bing-Yu Chen, and Tong-Yee Lee).

IEEE/EG Symposium on Interactive Ray Tracing 2008.

Eurographics Symposium on Rendering 2007 (co-chair with Sumanta Pattanaik).

Editorial Boards

Associate Editor, IEEE Transactions on Visualization & Computer Graphics (TVCG), since Feb. 2011.

Associate Editor, The Visual Computer, since Nov. 2010.

Associate Editor, Computer Graphics Forum (CGF), April 2008 – April 2011.

Associate Editor, International Journal of Image and Graphics (IJIG), May 2006 – Dec. 2010.

Program Committee Member

- 3DimPVT 2012
- ACM SIGGRAPH 2007 (Sketches & Posters), 2012 (Papers), 2013 (Papers)
- ACM SIGGRAPH Asia 2010 (Papers)
- ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games 2005, 2006, 2008, 2009, 2010, 2011
- Computer Graphics International 2006
- CVMP 2007, 2008, 2009, 2010, 2011
- Eurographics Symposium on Rendering 2004, 2005, 2006, 2008, 2009, 2012
- Eurographics 2004 (Short Papers), 2005 (Papers), 2008 (Tutorials), 2009 (Short Papers), 2012 (Papers), 2013 (Papers)
- Eurographics/SIGGRAPH Graphics Hardware 2004, 2005, 2006, 2007, 2008
- Graphics Interface 2004
- GRAPP 2007, 2008
- ICCV Color and Reflectance Workshop 2009
- IEEE International Conference on Computational Photography 2013
- IEEE Symposium on Interactive Ray Tracing 2006
- OpenSG Symposium 2002, 2003
- Pacific Graphics 2007, 2008, 2009
- VMV 2004, 2005, 2007
- Web3D Symposium 2003, 2004, 2005

Reviewer for Journals, Conferences, and Workshops

- ACM SIGGRAPH 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011
- ACM SIGGRAPH Asia 2008, 2009, 2011, 2012
- ACM SIGGRAPH Courses 2005, 2006
- ACM SIGGRAPH Sketches 2006
- ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games 2007
- Eurographics 2001, 2003, 2004, 2006, 2007, 2008, 2009, 2010, 2011
- Eurographics Symposium/Workshop on Rendering 2001, 2002, 2003, 2010, 2011
- Graphics Interface 2002, 2003, 2005, 2006, 2007
- IEEE Visualization 2004, 2006
- Pacific Graphics 2006
- VMV 2001, 2006, 2007
- ACM Transaction on Graphics
- Computer Graphics Forum
- Graphical Models
- IEEE Computer Graphics and Applications
- IEEE Transactions on Circuits and Systems for Video Technology
- IEEE Transactions on Image Processing
- IEEE Transactions on Multimedia
- IEEE Transactions on Pattern Analysis and Machine Intelligence
- IEEE Transactions on Visualization and Computer Graphics
- Journal of Graphics Tools
- Simulation Practice and Theory Journal
- The Visual Computer

General Service

- Member of the EPSRC Peer Review College (2012–)
- Member of the Eurographics Executive Committee (2012–).
- Member of the Eurographics Professional Board (2012–).
- Organizer of the London Graphics Seminar (2011–)
- Member of the Organizing Committee of CVMP (2011–).
- Member of Eurographics Symposium on Rendering Steering Committee (2008–2011).
- Local Organizer for Graphics Hardware 2002.

University Service

- Director of the EPSRC EngD Centre VEIV (2014–).
- External Examiner for Queen Mary University London (2011–).
- Director of MSc Computer Graphics, Vision and Imaging (2009–2012).
- Member of Faculty Search Committee “Graphics” (2008, 2010).
- Teaching Support Coordinator (2006–2009)

PATENTS

- P.-P. Sloan, J. Snyder, J. Kautz, *Graphics image rendering with radiance self-transfer for low-frequency lighting environments*, European Patent 1347419 (Sept. 2003), US Patent 7262770 (Aug. 2007).
- T. Annen, J. Kautz, T. Mertens, H.-P. Seidel, *Convolution shadow maps*, US Patent, filed Sept. 2007.
- J. Tompkin, K. I. Kim, J. Kautz, C. Theobalt, *Methods and Device for Exploring Sparse, Unstructured Digital Video Collections*, US Patent, filed May 2012.

TECHNOLOGY TRANSFER

Precomputed Radiance Transfer in Microsoft's DirectX SDK.

Exposure Fusion in many HDR applications (Photomatix, Enfuse, Brackeeter, ...).

Local Laplacian Filters in Adobe Lightroom 4 and Adobe Camera Raw.

PRESENTATIONS

Invited Keynotes

Eurographics Ireland Workshop 2009.

Flemish Minisymposium on Computer Graphics 2009.

Invited Talks

University of Edinburgh 2012, WPI 2012, GoboGames 2012, Microsoft Research Workshop 2012, University of Bath 2010, Swansea University 2010, Adobe Research 2009, Microsoft Research Cambridge 2008, University of Manchester 2008, Black Rock Studios 2008, CVMP 2006, Imperial College London 2006, University of Tübingen 2003, University of Bonn 2003, NVIDIA Corp. 2002, University of Weimar 2002, University of Kaiserslautern 2002, University of Bonn 2002, University of Vancouver 2001, University of Bonn 2001, University of Waterloo 2001, GDC Hardcore Technical Seminar 1999.

Tutorials – Organizer and Speaker

ACM SIGGRAPH 2009: *Real-Time Global Illumination*.

ACM SIGGRAPH 2005: *Precomputed Radiance Transfer: Theory and Practice*.

ACM SIGGRAPH 2004: *Real-Time Shadowing Techniques*.

Eurographics 2003: *State-of-the-Art-Report: Hardware Lighting and Shading*.

Tutorials – Speaker

ACM SIGGRAPH 2006: *Reflectance for Computer Games*.

Eurographics 2002: *Cloth Animation and Rendering*.

Solid Modeling 2002: *A Framework for the Acquisition, Processing, Transmission, and Interactive Display of High Quality 3D Models on the Web*.

GTEC 2001: *Advanced Lighting for Interactive Applications*.

Web3D 2001: *A Framework for the Acquisition, Processing, Transmission, and Interactive Display of High Quality 3D Models on the Web*.

PUBLICATIONS

ACM SIGGRAPH

- [1] K. Subr, J. Kautz, Fourier Analysis of Stochastic Sampling Strategies for Assessing Bias and Variance in Integration, *ACM Transaction on Graphics (Proceedings ACM SIGGRAPH)*, 32(4), to appear, July 2013.
- [2] J. Tompkin, S. Heinzle, J. Kautz, W. Matusik, Content-Adaptive Lenticular Prints, *ACM Transaction on Graphics (Proceedings ACM SIGGRAPH)*, 32(4), to appear, July 2013.
- [3] J. Cali, D. A. Calian, C. Amati, R. Kleinberger, A. Steed, J. Kautz, T. Weyrich, 3D-Printing of Non-Assembly, Articulated Models, *ACM Transaction on Graphics (Proceedings ACM SIGGRAPH Asia)*, 31(6), pages 130:1–130:8, November 2012.
- [4] J. Tompkin, K. I. Kim, J. Kautz, C. Theobalt, Videoscapes: Exploring Sparse, Unstructured Video Collections, *ACM Transaction on Graphics (Proceedings ACM SIGGRAPH)*, 31(4), pages 68:1–68:12, August 2012.
- [5] S. Paris, S. Hasinoff, J. Kautz, Local Laplacian Filters: Edge-aware Image Processing with a Laplacian Pyramid, *ACM Transaction on Graphics (Proceedings ACM SIGGRAPH)*, 30(4), pages 68:1–68:12, August 2011.
- [6] F. Xu, Y. Liu, C. Stoll, J. Tompkin, G. Bharaj, Q. Dai, H.-P. Seidel, J. Kautz, C. Theobalt, Video-based Characters – Creating New Human Performances from a Multi-view Video Database, *ACM Transaction on Graphics (Proceedings ACM SIGGRAPH)*, 30(4), pages 32:1–32:10, August 2011.

- [7] T. Ritschel, T. Thormaehlen, J. Kautz, C. Dachsbacher, H.-P. Seidel, Interactive On-Surface Signal Deformation, *ACM Transaction on Graphics (Proceedings ACM SIGGRAPH)*, 29(4), pages 36:1–36:8, July 2010.
- [8] M. Hullin, B. Ajdin, J. Kautz, H.-P. Seidel, H. Lensch, Acquisition and Analysis of Bispectral BRDFs, *ACM Transaction on Graphics (Proceedings ACM SIGGRAPH)*, 29(4), pages 97:1–97:7, July 2010.
- [9] T. Ritschel, T. Engelhardt, T. Grosch, H.-P. Seidel, J. Kautz, C. Dachsbacher, Micro-Rendering for Scalable, Parallel Final Gathering, *ACM Transaction on Graphics (Proceedings ACM SIGGRAPH Asia)*, 28(5), pages 132:1–132:8, December 2009.
- [10] M. H. Kim, T. Weyrich, J. Kautz, Modeling Human Color Perception under Extended Luminance Levels, *ACM Transaction on Graphics (Proceedings ACM SIGGRAPH)*, 28(3), pages 27:1–27:9, August 2009.
- [11] U. Mohammed, S. J. D. Prince, J. Kautz, Visio-ization – Generating Novel Facial Images, *ACM Transaction on Graphics (Proceedings ACM SIGGRAPH)*, 28(3), pages 57:1–57:8, August 2009.
- [12] T. Ritschel, T. Grosch, M. Kim, H.-P. Seidel, C. Dachsbacher, J. Kautz, Imperfect Shadow Maps for Efficient Computation of Indirect Illumination, *ACM Transaction on Graphics (Proceedings ACM SIGGRAPH Asia)*, 27(5), pages 128:1–128:8, December 2008.
- [13] T. Annen, Z. Dong, T. Mertens, P. Bekaert, H.-P. Seidel, J. Kautz, Real-Time, All-Frequency Shadows in Dynamic Scenes, *ACM Transaction on Graphics (Proceedings ACM SIGGRAPH)*, 27(3), pages 34:1–34:8, August 2008.
- [14] J. Kautz, S. Boulos, F. Durand, Interactive Editing and Modeling of Bidirectional Texture Functions, *ACM Transaction on Graphics (Proceedings ACM SIGGRAPH)*, 26(3), pages 53:1–53:10, August 2007.
- [15] P.-P. Sloan, J. Kautz, J. Snyder, Precomputed Radiance Transfer for Real-Time Rendering in Dynamic, Low-Frequency Lighting Environments, *ACM Transaction on Graphics (Proceedings ACM SIGGRAPH)*, 21(3), pages 527–536, July 2002.
- [16] W. Heidrich, K. Daubert, J. Kautz, H.-P. Seidel, Illuminating Micro Geometry Based on Precomputed Visibility, *Proceedings ACM SIGGRAPH 2000*, pages 455–464, July 2000.

Books

- [17] B.-Y. Chen, J. Kautz, T.-Y. Lee, and M. C. Lin (eds.), *Computer Graphics Forum (Proc. Pacific Graphics)*, 30(7), Eurographics Association / Wiley Blackwell, September 2011.
- [18] J. Kautz, S. Pattanaik (eds.), *Rendering Techniques 2007 (Eurographics Symposium on Rendering)*, Eurographics Association / AK Peters Ltd, June 2007.

Book Chapters

- [19] J. Kautz, Approximate Bidirectional Texture Functions, *GPU Gems II*, Editors Matt Pharr and Randima Fernando, Addison-Wesley, 2005.
- [20] J. Kautz, Rendering with Handcrafted Shading Models, *Game Programming Gems 3*, Editors Mark DeLoura and Dante Treglia, Charles River Media, 2002.

Journals

- [21] K. Subr, S. Paris, C. Soler, J. Kautz, Accurate Binary Image Selection from Inaccurate User Input, *Computer Graphics Forum (Proc. Eurographics 2013)*, 32(2), to appear, May 2013.
- [22] A. Steed, W. Steptoe, W. Oyekoya, F. Pece, T. Weyrich, J. Kautz, D. Friedman, A. Peer, M. Sollazzi, F. Tecchia, M. Bergamasco, M. Slater, Beaming: An Asymmetric Telepresence System, *IEEE Computer Graphics and Applications*, 32(6), pages 10–17, November/December 2012.
- [23] W. Steptoe, J.-M. Normand, O. Oyekoya, F. Pece, E. Giannopoulos, F. Tecchia, A. Steed, T. Weyrich, J. Kautz, M. Slater, Acting Rehearsal in Collaborative Multimodal Mixed Reality Environments, *PRESENCE: Teleoperators and Virtual Environments*, 21(4), pages 406–422, Fall 2012.
- [24] H. Lieng, J. Tompkin, J. Kautz, Interactive Multi-perspective Imagery from Photos and Videos, *Computer Graphics Forum (Proc. Eurographics 2012)*, 31(2), pages 285–293, May 2012.
- [25] M. Granadas, J. Tompkin, K. I. Kim, O. Grau, J. Kautz, C. Theobalt, How Not to Be Seen – Object Removal from Videos of Crowded Scenes, *Computer Graphics Forum (Proc. Eurographics 2012)*, 31(2), pages 219–228, May 2012.

- [26] T. Ritschel, T. Grosch, C. Dachsbacher, J. Kautz, State of the Art in Interactive Global Illumination, *Computer Graphics Forum*, 31(1), pages 160–188, February 2012.
- [27] M. H. Kim, T. Ritschel, J. Kautz, Edge-Aware Color Appearance, *ACM Transaction on Graphics (Presented at ACM SIGGRAPH)*, 30(2), pages 13:1–13:9, April 2011.
- [28] B. Yang, Z. Dong, J. Feng, H.-P. Seidel, J. Kautz, Variance Soft Shadow Mapping, *Computer Graphics Forum (Proc. Pacific Graphics)*, 29(7), pages 2127–2134, September 2010.
- [29] I. Yu, A. Cox, M. Kin, T. Ritschel, T. Grosch, C. Dachsbacher, J. Kautz, Perceptual Influence of Approximate Visibility in Indirect Illumination *ACM Transactions on Applied Perception (Presented at APGV 2009)*, 6(4), pages 24:1–24:14, October 2009.
- [30] T. Mertens, J. Kautz, F. van Reeth, Exposure Fusion: A Simple and Practical Alternative to High Dynamic Range Photography, *Computer Graphics Forum*, 28(1), pages 161–171, March 2009.
- [31] M. Kim, J. Kautz, Characterization for HDR Imaging, *Computer Graphics Forum (Proc. Eurographics 2008)*, 27(3), pages 691–698, April 2008.
- [32] P. Green, J. Kautz, F. Durand, Efficient Reflectance and Visibility Approximations for Environment Map Rendering, *Computer Graphics Forum (Proc. Eurographics 2007)*, 26(3), pages 495–502, September 2007.
- [33] T. Mertens, J. Kautz, P. Bekaert, H.-P. Seidel, F. Van Reeth, Efficient Rendering of Local Subsurface Scattering, *Computer Graphics Forum*, 24(1), pages 41–50, March 2005.
- [34] J. Kautz, Hardware Lighting and Shading: A Survey, *Computer Graphics Forum*, 23(1), pages 85–112, March 2004.
- [35] J. Kautz, K. Daubert, H.-P. Seidel, Advanced Environment Mapping in VR Applications, *Computers & Graphics*, 28(1), pages 99–104, February 2004.
- [36] H. Lensch, M. Goesele, P. Bekaert, J. Kautz, M. Magnor, J. Lang, H.-P. Seidel, Interactive Rendering of Translucent Objects, *Computer Graphics Forum*, 22(2), pages 195–205, June 2003.
- [37] K. Daubert, W. Heidrich, J. Kautz, J.-M. Dischler, H.-P. Seidel, Efficient Light Transport Using Precomputed Visibility, *IEEE Computer Graphics and Applications*, 23(3), pages 28–37, May 2003.
- [38] H. Lensch, J. Kautz, M. Goesele, W. Heidrich, H.-P. Seidel, Image-Based Reconstruction of Spatial Appearance and Geometric Detail, *ACM Transactions on Graphics*, 22(2), pages 234–257, April 2003.
- [39] J. Kautz, H.-P. Seidel, Real-Time Halftoning, *Journal of Graphics Tools*, 7(4), pages 27–32, 2002.

International, Refereed Conferences

- [40] N. Campbell, K. Subr, J. Kautz, Efficient, Fully-Connected CRF Inference with Data-Dependent, Non-Parametric Pairwise Potentials *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, to appear, June 2013.
- [41] F. Pece, W. Steptoe, F. Wanner, S. Julier, T. Weyrich, J. Kautz, A. Steed, PanoInserts: Practical Spatial Teleconferencing, *SIGCHI Conference on Human Factors in Computing Systems (CHI '12)*, to appear, April 2013. **Best Paper Honorable Mention Award.**
- [42] P. Levieux, J. Tompkin, J. Kautz, Interactive Viewpoint Video Textures, *CVMP 2012: 8th European Conference on Visual Media Production*, pages 11-17, December 2012.
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REFERENCES

Hans-Peter Seidel
 Computer Graphics Department
 Max-Planck-Institut für Informatik
 Stuhlsatzenhausweg 85
 66123 Saarbrücken
 Germany
 Phone: (+49) 681 9325-400
 Fax: (+49) 681 9325-499
 EMail: hpseidel@mpi-sb.mpg.de

Wolfgang Heidrich
 Department of Computer Science
 University of British Columbia
 2366 Main Mall
 Vancouver, BC, V6T 1Z4
 Canada
 Phone: (+1) 604 822-4326
 Fax: (+1) 604 822-4231
 EMail: heidrich@cs.ubc.ca

Hanspeter Pfister
School of Engineering & Applied Sciences
Harvard University
33 Oxford Street
Cambridge, MA, 02138
USA
Phone: (+1) 617 496-8269
Fax: (+1) 617 496-1066
EMail: pfister@seas.harvard.edu

Frédo Durand
CSAIL
Massachusetts Institute of Technology
32 Vassar Street, 32-D426
Cambridge, MA, 02139
USA
Phone: (+1) 617 253-7223
Fax: (+1) 617 253-4640
EMail: fredo@mit.edu