

# Carsten Dachsbacher

## List of Publications by Year in descending order

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Version: 2024-02-01

64  
papers

1,555  
citations

394421

19  
h-index

377865

34  
g-index

64  
all docs

64  
docs citations

64  
times ranked

903  
citing authors

#	ARTICLE	IF	CITATIONS
1	Imperfect shadow maps for efficient computation of indirect illumination. ACM Transactions on Graphics, 2008, 27, 1-8.	7.2	122
2	The State of the Art in Interactive Global Illumination. Computer Graphics Forum, 2012, 31, 160-188.	3.0	113
3	Cascaded light propagation volumes for real-time indirect illumination. , 2010, , .		98
4	Scalable Realistic Rendering with Manyâ€Light Methods. Computer Graphics Forum, 2014, 33, 88-104.	3.0	91
5	Spatiotemporal variance-guided filtering. , 2017, , .		78
6	Micro-rendering for scalable, parallel final gathering. ACM Transactions on Graphics, 2009, 28, 1-8.	7.2	58
7	The natural-constraint representation of the path space for efficient light transport simulation. ACM Transactions on Graphics, 2014, 33, 1-13.	7.2	54
8	Implicit visibility and antiradiance for interactive global illumination. ACM Transactions on Graphics, 2007, 26, 61.	7.2	53
9	Dualâ€color mixing for fused deposition modeling printers. Computer Graphics Forum, 2014, 33, 479-486.	3.0	52
10	Stochastic Soft Shadow Mapping. Computer Graphics Forum, 2015, 34, 1-11.	3.0	49
11	Adaptive progressive photon mapping. ACM Transactions on Graphics, 2013, 32, 1-13.	7.2	48
12	Physically Meaningful Rendering using Tristimulus Colours. Computer Graphics Forum, 2015, 34, 31-40.	3.0	48
13	Epipolar sampling for shadows and crepuscular rays in participating media with single scattering. , 2010, , .		44
14	Coherent Culling and Shading for Large Molecular Dynamics Visualization. Computer Graphics Forum, 2010, 29, 953-962.	3.0	43
15	Structureâ€Preserving Reshape for Textured Architectural Scenes. Computer Graphics Forum, 2009, 28, 469-480.	3.0	38
16	Path Space Regularization for Holistic and Robust Light Transport. Computer Graphics Forum, 2013, 32, 63-72.	3.0	37
17	Decoupled deferred shading for hardware rasterization. , 2012, , .		34
18	Progressive Virtual Beam Lights. Computer Graphics Forum, 2012, 31, 1407-1413.	3.0	31

#	ARTICLE	IF	CITATIONS
19	State of the Art in Artistic Editing of Appearance, Lighting and Material. Computer Graphics Forum, 2016, 35, 216-233.	3.0	29
20	Interactive modeling of implicit surfaces using a direct visualization approach with signed distance functions. Computers and Graphics, 2011, 35, 596-603.	2.5	26
21	Efficient Monte Carlo rendering with realistic lenses. Computer Graphics Forum, 2014, 33, 323-332.	3.0	23
22	Low-Pass Filtered Volumetric Shadows. IEEE Transactions on Visualization and Computer Graphics, 2014, 20, 2437-2446.	4.4	22
23	Selective guided sampling with complete light transport paths. ACM Transactions on Graphics, 2018, 37, 1-14.	7.2	22
24	Improved Half Vector Space Light Transport. Computer Graphics Forum, 2015, 34, 65-74.	3.0	21
25	Perceptual influence of approximate visibility in indirect illumination. ACM Transactions on Applied Perception, 2009, 6, 1-14.	1.9	20
26	Path-space manipulation of physically-based light transport. ACM Transactions on Graphics, 2013, 32, 1-11.	7.2	19
27	Screen-space bias compensation for interactive high-quality global illumination with virtual point lights. , 2011, , .		17
28	Improved Model- and View-Dependent Pruning of Large Botanical Scenes. Computer Graphics Forum, 2011, 30, 1708-1718.	3.0	17
29	Reducing Noise in Image-Space Caustics with Variable-Sized Splatting. Journal of Graphics Tools, 2008, 13, 1-17.	0.5	16
30	Analyzing Visibility Configurations. IEEE Transactions on Visualization and Computer Graphics, 2011, 17, 475-486.	4.4	14
31	Rasterized Bounding Volume Hierarchies. Computer Graphics Forum, 2012, 31, 403-412.	3.0	14
32	Real-time volume caustics with adaptive beam tracing. , 2011, , .		13
33	Rich VPLs for Improving the Versatility of Many Light Methods. Computer Graphics Forum, 2015, 34, 575-584.	3.0	13
34	Selective Inspection and Interactive Visualization of Light Transport in Virtual Scenes. Computer Graphics Forum, 2012, 31, 711-718.	3.0	12
35	Highly efficient computation of Finite-Time Lyapunov Exponents (FTLE) on GPUs based on three-dimensional SPH datasets. Computers and Fluids, 2018, 175, 129-141.	2.5	11
36	Approximate Bias Compensation for Rendering Scenes with Heterogeneous Participating Media. Computer Graphics Forum, 2012, 31, 2145-2154.	3.0	10

#	ARTICLE	IF	CITATIONS
37	Low-Cost Subpixel Rendering for Diverse Displays. Computer Graphics Forum, 2014, 33, 199-209.	3.0	10
38	Anisotropic Ambient Volume Shading. IEEE Transactions on Visualization and Computer Graphics, 2016, 22, 1015-1024.	4.4	10
39	Re-Weighting Firefly Samples for Improved Finite-Sample Monte Carlo Estimates. Computer Graphics Forum, 2018, 37, 410-421.	3.0	10
40	Filtering Multi-Layer Shadow Maps for Accurate Soft Shadows. Computer Graphics Forum, 2015, 34, 205-215.	3.0	9
41	Real-Time Isosurface Extraction With View-Dependent Level of Detail and Applications. Computer Graphics Forum, 2015, 34, 103-115.	3.0	8
42	Line Integration for Rendering Heterogeneous Emissive Volumes. Computer Graphics Forum, 2017, 36, 101-110.	3.0	8
43	The GÃrdel Engine - An interactive approach to visualization in general relativity. Computer Graphics Forum, 2009, 28, 807-814.	3.0	7
44	Principal-Ordinates Propagation for real-time rendering of participating media. Computers and Graphics, 2014, 45, 28-39.	2.5	7
45	Multiple Vertex Next Event Estimation for Lighting in dense, forward-scattering Media. Computer Graphics Forum, 2017, 36, 21-30.	3.0	7
46	Wide Gamut Spectral Upsampling with Fluorescence. Computer Graphics Forum, 2019, 38, 87-96.	3.0	7
47	Analyzing the Interaction of Vortex and Gas-Liquid; Interface Dynamics in Fuel Spray Nozzles by Means of Lagrangian-Coherent Structures (2D). Energies, 2019, 12, 2552.	3.1	7
48	Sensor-Realistic Simulations for Evaluation and Planning of Optical Measurement Systems With an Application to Laser Triangulation. IEEE Sensors Journal, 2020, 20, 5336-5349.	4.7	7
49	Physically based computer graphics for realistic image formation to simulate optical measurement systems. Journal of Sensors and Sensor Systems, 2017, 6, 171-184.	0.9	7
50	Visualization of Coherent Structures of Light Transport. Computer Graphics Forum, 2015, 34, 491-500.	3.0	6
51	Improving the Dwivedi Sampling Scheme. Computer Graphics Forum, 2016, 35, 37-44.	3.0	5
52	Real-time global illumination for dynamic scenes. , 2009, , .		4
53	A runtime cache for interactive procedural modeling. Computers and Graphics, 2012, 36, 366-375.	2.5	4
54	Synthesizing images using parameterized models for automated optical inspection (AOI). TM Technisches Messen, 2015, 82, 251-261.	0.7	4

#	ARTICLE	IF	CITATIONS
55	Memory-Efficient On-the-Fly Voxelization and Rendering of Particle Data. IEEE Transactions on Visualization and Computer Graphics, 2018, 24, 1155-1166.	4.4	4
56	Adaptive Quantization Visibility Caching. Computer Graphics Forum, 2013, 32, 399-408.	3.0	3
57	Applying Visual Analytics to Physically Based Rendering. Computer Graphics Forum, 2019, 38, 197-208.	3.0	3
58	Spectral Mollification for Bidirectional Fluorescence. Computer Graphics Forum, 2020, 39, 373-384.	3.0	3
59	Fractional Reyes-Style Adaptive Tessellation for Continuous Level of Detail. Computer Graphics Forum, 2014, 33, 191-198.	3.0	2
60	Path differential-informed stratified MCMC and adaptive forward path sampling. ACM Transactions on Graphics, 2020, 39, 1-19.	7.2	2
61	Stochastic Volume Rendering of Multi-Phase SPH Data. Computer Graphics Forum, 2021, 40, 97-109.	3.0	1
62	Ambient Volume Illumination. Computing in Science and Engineering, 2016, 18, 90-97.	1.2	0
63	Transport path precomputation for real-time room reverb. , 2018, , .		0
64	Analysis of Acceleration Structure Parameters and Hybrid Autotuning for Ray Tracing. IEEE Transactions on Visualization and Computer Graphics, 2023, 29, 1345-1356.	4.4	0