Kavita Bala

List of Publications by Year
in descending order

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104	5,027	172386	161767
papers	citations	29	54
		h-index	g-index

106	106	106	2444
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Deep Photo Style Transfer. , 2017, , .		412
2	Learning visual similarity for product design with convolutional neural networks. ACM Transactions on Graphics, 2015, 34, 1-10.	4.9	285
3	Optimistic parallelism requires abstractions. , 2007, , .		284
4	Material recognition in the wild with the Materials in Context Database. , 2015, , .		284
5	Intrinsic images in the wild. ACM Transactions on Graphics, 2014, 33, 1-12.	4.9	275
6	Lightcuts. ACM Transactions on Graphics, 2005, 24, 1098-1107.	4.9	217
7	Learning Visual Clothing Style with Heterogeneous Dyadic Co-Occurrences. , 2015, , .		199
8	Deep Feature Interpolation for Image Content Changes. , 2017, , .		167
9	OpenSurfaces. ACM Transactions on Graphics, 2013, 32, 1-17.	4.9	138
10	Matching Real Fabrics with Micro-Appearance Models. ACM Transactions on Graphics, 2015, 35, 1-26.	4.9	119
11	Multidimensional lightcuts. ACM Transactions on Graphics, 2006, 25, 1081-1088.	4.9	113
12	Inverse volume rendering with material dictionaries. ACM Transactions on Graphics, 2013, 32, 1-13.	4.9	102
13	Adaptive shadow maps. , 2001, , .		96
14	Visual equivalence. ACM Transactions on Graphics, 2007, 26, 76.	4.9	89
15	Matrix row-column sampling for the many-light problem. ACM Transactions on Graphics, 2007, 26, 26.	4.9	88
16	A radiative transfer framework for rendering materials with anisotropic structure. ACM Transactions on Graphics, 2010, 29, 1-13.	4.9	81
17	Building volumetric appearance models of fabric using micro CT imaging. ACM Transactions on Graphics, 2011, 30, 1-10.	4.9	74
18	Optimistic parallelism requires abstractions. ACM SIGPLAN Notices, 2007, 42, 211-222.	0.2	69

#	Article	IF	Citations
19	Direct-to-indirect transfer for cinematic relighting. ACM Transactions on Graphics, 2006, 25, 1089-1097.	4.9	68
20	Understanding the role of phase function in translucent appearance. ACM Transactions on Graphics, 2013, 32, 1-19.	4.9	62
21	Combining edges and points for interactive high-quality rendering. ACM Transactions on Graphics, 2003, 22, 631-640.	4.9	61
22	Single view reflectance capture using multiplexed scattering and time-of-flight imaging. ACM Transactions on Graphics, 2011, 30, 1-10.	4.9	61
23	Fast agglomerative clustering for rendering. , 2008, , .		60
24	Looking against the light: How perception of translucency depends on lighting direction. Journal of Vision, 2014, 14, 17-17.	0.1	56
25	Optimistic parallelism benefits from data partitioning. , 2008, , .		55
26	Bidirectional lightcuts. ACM Transactions on Graphics, 2012, 31, 1-11.	4.9	55
27	Structure-aware synthesis for predictive woven fabric appearance. ACM Transactions on Graphics, 2012, 31, 1-10.	4.9	51
28	Radiance interpolants for accelerated bounded-error ray tracing. ACM Transactions on Graphics, 1999, 18, 213-256.	4.9	50
29	Virtual spherical lights for many-light rendering of glossy scenes. ACM Transactions on Graphics, 2009, 28, 1-6.	4.9	49
30	Scheduling strategies for optimistic parallel execution of irregular programs. , 2008, , .		45
31	Single scattering in refractive media with triangle mesh boundaries. ACM Transactions on Graphics, 2009, 28, 1-8.	4.9	45
32	Intrinsic Decompositions for Image Editing. Computer Graphics Forum, 2017, 36, 593-609.	1.8	45
33	Deep Painterly Harmonization. Computer Graphics Forum, 2018, 37, 95-106.	1.8	42
34	Effects of global illumination approximations on material appearance. ACM Transactions on Graphics, 2010, 29, 1-10.	4.9	41
35	Shading Annotations in the Wild. , 2017, , .		40
36	Fitting procedural yarn models for realistic cloth rendering. ACM Transactions on Graphics, 2016, 35, 1-11.	4.9	39

#	Article	IF	Citations
37	Lightcuts. , 2005, , .		38
38	Unified Shape and SVBRDF Recovery using Differentiable Monte Carlo Rendering. Computer Graphics Forum, 2021, 40, 101-113.	1.8	37
39	Matrix row-column sampling for the many-light problem. , 2007, , .		36
40	Automatic shader simplification using surface signal approximation. ACM Transactions on Graphics, 2014, 33, 1-11.	4.9	36
41	High-order similarity relations in radiative transfer. ACM Transactions on Graphics, 2014, 33, 1-12.	4.9	34
42	Visual equivalence. , 2007, , .		33
43	Band-Sifting Decomposition for Image-Based Material Editing. ACM Transactions on Graphics, 2015, 34, 1-16.	4.9	30
44	Constrained Texture Synthesis via Energy Minimization. IEEE Transactions on Visualization and Computer Graphics, 2007, 13, 167-178.	2.9	29
45	User-guided white balance for mixed lighting conditions. ACM Transactions on Graphics, 2012, 31, 1-10.	4.9	28
46	Tensor Clustering for Rendering Many-Light Animations. Computer Graphics Forum, 2008, 27, 1105-1114.	1.8	27
47	User-assisted image compositing for photographic lighting. ACM Transactions on Graphics, 2013, 32, 1-12.	4.9	26
48	Accurate direct illumination using iterative adaptive sampling. IEEE Transactions on Visualization and Computer Graphics, 2006, 12, 353-364.	2.9	23
49	On the appearance of translucent edges. , 2015, , .		23
50	Combining global and local virtual lights for detailed glossy illumination. ACM Transactions on Graphics, 2010, 29, 1-8.	4.9	22
51	Heterogeneous Subsurface Scattering Using the Finite Element Method. IEEE Transactions on Visualization and Computer Graphics, 2011, 17, 956-969.	2.9	22
52	Modular flux transfer. ACM Transactions on Graphics, 2013, 32, 1-12.	4.9	22
53	Photometric Ambient Occlusion. , 2013, , .		22
54	Combining edges and points for interactive high-quality rendering. , 2003, , .		21

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55	Multidimensional lightcuts. , 2006, , .		21
56	Optimistic parallelism requires abstractions. Communications of the ACM, 2009, 52, 89-97.	3.3	20
57	Single view reflectance capture using multiplexed scattering and time-of-flight imaging. , 2011, , .		20
58	Effect of geometric sharpness on translucent material perception. Journal of Vision, 2020, 20, 10.	0.1	20
59	Singleâ€pass Scalable Subsurface Rendering with Lightcuts. Computer Graphics Forum, 2008, 27, 507-516.	1.8	16
60	Perception of complex aggregates. ACM Transactions on Graphics, 2008, 27, 1-10.	4.9	16
61	Virtual spherical lights for many-light rendering of glossy scenes. , 2009, , .		16
62	A radiative transfer framework for rendering materials with anisotropic structure. , 2010, , .		16
63	A Local Frequency Analysis of Light Scattering and Absorption. ACM Transactions on Graphics, 2014, 33, 1-17.	4.9	15
64	Optimistic parallelism benefits from data partitioning. Computer Architecture News, 2008, 36, 233-243.	2.5	13
65	Block Annotation: Better Image Annotation With Sub-Image Decomposition. , 2019, , .		13
66	Crowd Light: Evaluating the Perceived Fidelity of Illuminated Dynamic Scenes. Computer Graphics Forum, 2012, 31, 565-574.	1.8	12
67	Shadow Detection and Sun Direction in Photo Collections. , 2015, , .		12
68	Photometric Ambient Occlusion for Intrinsic Image Decomposition. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2016, 38, 639-651.	9.7	12
69	Building volumetric appearance models of fabric using micro CT imaging. , 2011, , .		11
70	Langevin monte carlo rendering with gradient-based adaptation. ACM Transactions on Graphics, 2020, 39, .	4.9	11
71	Computational rim illumination with aerial robots. , 2014, , .		9
72	Materials In Paintings (MIP): An interdisciplinary dataset for perception, art history, and computer vision. PLoS ONE, 2021, 16, e0255109.	1.1	9

#	Article	IF	Citations
73	State of the art in Monte Carlo global illumination. , 2004, , .		8
74	Direct-to-indirect transfer for cinematic relighting. , 2006, , .		8
75	Perception of complex aggregates. , 2008, , .		8
76	Dimensionality of visual complexity in computer graphics scenes. Proceedings of SPIE, 2008, , .	0.8	8
77	Fiberâ€Level Onâ€theâ€Fly Procedural Textiles. Computer Graphics Forum, 2017, 36, 123-135.	1.8	8
78	Fast rendering of fabric micro-appearance models under directional and spherical gaussian lights. ACM Transactions on Graphics, 2017, 36, 1-15.	4.9	8
79	Optimistic parallelism benefits from data partitioning. Operating Systems Review (ACM), 2008, 42, 233-243.	1.5	7
80	Context-Aware Asset Search for Graphic Design. IEEE Transactions on Visualization and Computer Graphics, 2019, 25, 2419-2429.	2.9	7
81	Single scattering in refractive media with triangle mesh boundaries. , 2009, , .		6
82	Interactive Ray-Traced Scene Editing Using Ray Segment Trees. Eurographics, 1999, , 31-44.	0.4	6
83	Automatic bounding of programmable shaders for efficient global illumination. ACM Transactions on Graphics, 2009, 28, 1-9.	4.9	4
84	Building volumetric appearance models of fabric using micro CT imaging. Communications of the ACM, 2014, 57, 98-105.	3.3	4
85	Insights from a Large-Scale Database of Material Depictions in Paintings. Lecture Notes in Computer Science, 2021, , 531-545.	1.0	4
86	What Can Style Transfer and Paintings Do For Model Robustness?. , 2021, , .		4
87	Effects of global illumination approximations on material appearance. , 2010, , .		3
88	Computational rim illumination of dynamic subjects using aerial robots. Computers and Graphics, 2015, 52, 142-154.	1.4	3
89	Machine Learning (ML) for Tracking Fashion Trends: Documenting the Frequency of the Baseball Cap on Social Media and the Runway. Clothing and Textiles Research Journal, 2020, , 0887302X2093119.	2.2	3
90	Do-it-yourself lighting design for product videography. , 2016, , .		2

#	Article	IF	Citations
91	Scene Summarization via Motion Normalization. IEEE Transactions on Visualization and Computer Graphics, 2021, 27, 2495-2501.	2.9	2
92	Implementing lightcuts. , 2005, , .		1
93	Automatic bounding of programmable shaders for efficient global illumination. , 2009, , .		1
94	A Database of Painterly Material Depictions. Journal of Vision, 2020, 20, 1127.	0.1	1
95	Optimistic parallelism benefits from data partitioning. ACM SIGPLAN Notices, 2008, 43, 233-243.	0.2	0
96	Prefiltered Cross-Section Occluders. , 2010, , .		0
97	Predictive rendering for accurate material perception: modeling and rendering fabrics. , 2012, , .		0
98	Modeling cloth at micron resolution. Proceedings of SPIE, 2014, , .	0.8	0
99	Talk abstract: Computational lighting design and band-sifting operators. , 2015, , .		0
100	Guest Editorial: Introduction to the Special Section on Computational Photography. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021, 43, 2175-2178.	9.7	0
101	Painterly depictions of glasses display a stylized pattern of highlights. Journal of Vision, 2021, 21, 1955.	0.1	0
102	Learning From Paintings Improves Representations for Fabric Recognition. Journal of Vision, 2021, 21, 2185.	0.1	0
103	Does geometric sharpness affect perception of translucent material perception?. Journal of Vision, 2018, 18, 225.	0.1	0
104	Modeling and representing materials in the wild. , 2014, , .		0