## Mateu Sbert

## List of Publications by Year in descending order

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318942 325983 2,338 183 23 40 citations h-index g-index papers 191 191 191 1929 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Generalizing the Balance Heuristic Estimator in Multiple Importance Sampling. Entropy, 2022, 24, 191.	1.1	7
2	A Bounded Measure for Estimating the Benefit of Visualization (Part I): Theoretical Discourse and Conceptual Evaluation. Entropy, 2022, 24, 228.	1.1	5
3	A Bounded Measure for Estimating the Benefit of Visualization (Part II): Case Studies and Empirical Evaluation. Entropy, 2022, 24, 282.	1.1	3
4	Histogram Ordering. IEEE Access, 2021, 9, 28785-28796.	2.6	5
5	Stochastic Order and Generalized Weighted Mean Invariance. Entropy, 2021, 23, 662.	1.1	0
6	Interpreting Social Accounting Matrix (SAM) as an Information Channel. Entropy, 2020, 22, 1346.	1.1	1
7	Gaze Information Channel in Van Gogh's Paintings. Entropy, 2020, 22, 540.	1.1	2
8	Stochastic Orders on Two-Dimensional Space: Application to Cross Entropy. Lecture Notes in Computer Science, 2020, , 28-40.	1.0	1
9	Color Channel Transfer for Image Dehazing. IEEE Signal Processing Letters, 2019, 26, 1413-1417.	2.1	38
10	Gaze Information Channel in Cognitive Comprehension of Poster Reading. Entropy, 2019, 21, 444.	1.1	9
11	Local Parallel Cross Pattern: A Color Texture Descriptor for Image Retrieval. Sensors, 2019, 19, 315.	2.1	7
12	Multiple importance sampling characterization by weighted mean invariance. Visual Computer, 2018, 34, 843-852.	2.5	12
13	A group-based signal filtering approach for trajectory abstraction and restoration. Neural Computing and Applications, 2018, 29, 371-387.	3.2	2
14	Some Order Preserving Inequalities for Cross Entropy and Kullback–Leibler Divergence. Entropy, 2018, 20, 959.	1.1	5
15	Pupillary Reactivity to Non-Photorealistic Rendering: A Case Study of Immersion in 3D Cinema. , 2018, , .		1
16	Decolorization by Fusion. IEEE Access, 2018, 6, 64071-64084.	2.6	3
17	Multi-Exposure Image Fusion Based on Information-Theoretic Channel. , 2018, , .		2
18	Gestural Interaction and Visual Illusion for Lower Limbs' Neuropathic Pain Treatment. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 2217-2225.	2.7	5

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19	Gaze Information Channel. Lecture Notes in Computer Science, 2018, , 575-585.	1.0	2
20	IBVis: Interactive Visual Analytics for Information Bottleneck Based Trajectory Clustering. Entropy, 2018, 20, 159.	1.1	2
21	A Survey of Viewpoint Selection Methods for Polygonal Models. Entropy, 2018, 20, 370.	1.1	27
22	CPRforblind: A video game to introduce cardiopulmonary resuscitation protocol to blind people. British Journal of Educational Technology, 2018, 49, 636-645.	3.9	5
23	Multiple importance sampling revisited: breaking the bounds. Eurasip Journal on Advances in Signal Processing, 2018, 2018, .	1.0	20
24	Random-valued impulse noise removal using adaptive ranked-ordered impulse detector. Journal of Electronic Imaging, 2018, 27, 1.	0.5	4
25	Shape exploration of 3D heterogeneous models based on cages. Multimedia Tools and Applications, 2017, 76, 12369-12390.	2.6	3
26	Tutorial on information theory in visualization. , 2017, , .		1
27	Adaptive multiple importance sampling for general functions. Visual Computer, 2017, 33, 845-855.	2.5	19
28	Information measures for terrain visualization. Computers and Geosciences, 2017, 99, 9-18.	2.0	6
29	Augmented film narrative by use of non-photorealistic rendering. , 2017, , .		1
30	Trajectory Shape Analysis and Anomaly Detection Utilizing Information Theory Tools. Entropy, 2017, 19, 323.	1.1	13
31	From 2D to 3D: A Case Study of NPR and Stereoscopic Cinema. Lecture Notes in Computer Science, 2017, , 87-98.	1.0	2
32	30 : 2: A Game Designed to Promote the Cardiopulmonary Resuscitation Protocol. International Journal of Computer Games Technology, 2016, 2016, 1-14.	1.6	10
33	Selecting Video Key Frames Based on Relative Entropy and the Extreme Studentized Deviate Test. Entropy, 2016, 18, 73.	1.1	12
34	Key Frame Extraction Based on Motion Vector. Lecture Notes in Computer Science, 2016, , 387-395.	1.0	3
35	A necessary and sufficient condition for the inequality of generalized weighted means. Journal of Inequalities and Applications, 2016, 2016, .	0.5	9
36	Variance Analysis of Multiâ€sample and Oneâ€sample Multiple Importance Sampling. Computer Graphics Forum, 2016, 35, 451-460.	1.8	13

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37	Fast Agglomerative Information Bottleneck Based Trajectory Clustering. Lecture Notes in Computer Science, 2016, , 425-433.	1.0	1
38	Using a serious game to complement CPR instruction in a nurse faculty. Computer Methods and Programs in Biomedicine, 2015, 122, 282-291.	2.6	85
39	Surface reflectance characterization by statistical tools. , 2015, , .		5
40	3D shape retrieval using viewpoint informationâ€theoretic measures. Computer Animation and Virtual Worlds, 2015, 26, 147-156.	0.7	3
41	Fast TLS Denoising Algorithm Using Grid Technique., 2015,,.		0
42	Hierarchical clustering based on the information bottleneck method using a control process. Pattern Analysis and Applications, 2015, 18, 619-637.	3.1	2
43	XalBO: An Extension of alB for Trajectory Clustering with Outlier. Lecture Notes in Computer Science, 2015, , 423-431.	1.0	2
44	Implementation of an Immersive Videogame. International Journal of Creative Interfaces and Computer Graphics, 2015, 6, 1-20.	0.1	3
45	View-Dependent Tessellation and Simulation of Ocean Surfaces. Scientific World Journal, The, 2014, 2014, 1-12.	0.8	4
46	Information Theory Tools for Image Processing. Synthesis Lectures on Computer Graphics and Animation, 2014, 6, 1-164.	0.1	10
47	Analysis of image informativeness measures. , 2014, , .		6
48	Optimal combination of techniques in multiple importance sampling. , 2014, , .		16
49	Browsing and exploration of video sequences: A new scheme for key frame extraction and 3D visualization using entropy based Jensen divergence. Information Sciences, 2014, 278, 736-756.	4.0	39
50	F-divergences driven video key frame extraction. , 2014, , .		7
51	A New Scheme for Trajectory Visualization. , 2014, , .		4
52	Overestimation and Underestimation Biases in Photon Mapping with Non-Constant Kernels. IEEE Transactions on Visualization and Computer Graphics, 2014, 20, 1441-1450.	2.9	5
53	LISSA a serious game to teach CPR and use of AED. Resuscitation, 2014, 85, S72.	1.3	11
54	A novel approach for enhancing very dark image sequences. Signal Processing, 2014, 103, 309-330.	2.1	19

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55	Reducing complexity in polygonal meshes with view-based saliency. Computer Aided Geometric Design, 2014, 31, 279-293.	0.5	11
56	Serious Games for e-Health Care. Gaming Media and Social Effects, 2014, , 127-146.	0.7	28
57	POST-PROCESSING EXPRESSIVE RENDERING EFFECTS FOR VISUAL DEFICIENCY., 2014,,.		0
58	Tsallis entropy-based information measures for shot boundary detection and keyframe selection. Signal, Image and Video Processing, 2013, 7, 507-520.	1.7	25
59	Information measures for object understanding. Signal, Image and Video Processing, 2013, 7, 467-478.	1.7	4
60	Simplification method for textured polygonal meshes based on structural appearance. Signal, Image and Video Processing, 2013, 7, 479-492.	1.7	7
61	Information Theory-Based Automatic Multimodal Transfer Function Design. IEEE Journal of Biomedical and Health Informatics, 2013, 17, 870-880.	3.9	12
62	Computer-aided image geometry analysis and subset selection for optimizing texture quality in photorealistic models. Computers and Geosciences, 2013, 52, 281-291.	2.0	4
63	Serious games for health. Entertainment Computing, 2013, 4, 231-247.	1.8	211
64	Flower modelling using natural interface and 3Gmap L-systems. , 2013, , .		0
65	Smooth shadow boundaries with exponentially warped Gaussian filtering. Computers and Graphics, 2013, 37, 214-224.	1.4	6
66	Viewpoint information-theoretic measures for 3D shape similarity., 2013,,.		0
67	Post-processing NPR effects for video games. , 2013, , .		13
68	An Informationâ€Theoretic Observation Channel for Volume Visualization. Computer Graphics Forum, 2013, 32, 411-420.	1.8	13
69	Modifying a game interface to take advantage of advanced I/O devices. , 2013, , .		3
70	Multimodal Data Fusion Based on Mutual Information. IEEE Transactions on Visualization and Computer Graphics, 2012, 18, 1574-1587.	2.9	44
71	The Framework of a Life Support Simulation Application. Procedia Computer Science, 2012, 15, 293-294.	1.2	3
72	Description and Solution of an Unreported Intrinsic Bias in Photon Mapping Density Estimation with Constant Kernel. Computer Graphics Forum, 2012, 31, 33-41.	1.8	3

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73	Energy-saving light positioning using heuristic search. Engineering Applications of Artificial Intelligence, 2012, 25, 566-582.	4.3	11
74	Rain Simulation in Dynamic Scenes. , 2012, , 291-305.		0
75	Modeling of Flowers with Inverse Grammar Generation Interface. International Journal of Creative Interfaces and Computer Graphics, 2012, 3, 23-41.	0.1	0
76	Automatic Transfer Functions Based on Informational Divergence. IEEE Transactions on Visualization and Computer Graphics, 2011, 17, 1932-1941.	2.9	42
77	Information theory in computer graphics and visualization. , 2011, , .		0
78	Multiresolution image registration based on tree data structures. Graphical Models, 2011, 73, 111-126.	1.1	3
79	Shadow map filtering with Gaussian shadow maps. , 2011, , .		3
80	Tsallis Mutual Information for Document Classification. Entropy, 2011, 13, 1694-1707.	1.1	26
81	Tsallis Entropy for Geometry Simplification. Entropy, 2011, 13, 1805-1828.	1.1	3
82	Image Information in Digital Photography. Lecture Notes in Computer Science, 2011, , 122-131.	1.0	4
83	Rain Simulation in Dynamic Scenes. International Journal of Creative Interfaces and Computer Graphics, 2011, 2, 23-36.	0.1	4
84	Volumetric Ambient Occlusion for Real-Time Rendering and Games. IEEE Computer Graphics and Applications, 2010, 30, 70-79.	1.0	29
85	Volumetric ambient occlusion for volumetric models. Visual Computer, 2010, 26, 687-695.	2.5	6
86	Viewpoint information channel for illustrative volume rendering. Computers and Graphics, 2010, 34, 351-360.	1.4	13
87	Image registration by compression. Information Sciences, 2010, 180, 1121-1133.	4.0	14
88	Selection and 3D visualization of video key frames. , 2010, , .		4
89	A new refinement criterion for adaptive sampling in path tracing. , 2010, , .		2
90	Incremental Reuse of Paths in Random Walk Radiosity. Lecture Notes in Computer Science, 2010, , 379-386.	1.0	1

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91	Partial, multi-scale precomputed radiance transfer. , 2010, , .		O
92	A new approach for very dark video denoising and enhancement. , 2010, , .		14
93	Screen Space Soft Shadows. , 2010, , 477-491.		4
94	Efficient Animation Rendering Based on Spatio-Temporal Coherence., 2009, , .		1
95	A unified information-theoretic framework for viewpoint selection and mesh saliency. ACM Transactions on Applied Perception, 2009, 6, 1-23.	1.2	119
96	Information Theory Tools for Computer Graphics. Synthesis Lectures on Computer Graphics and Animation, 2009, 4, 1-153.	0.1	8
97	Categorizing art: Comparing humans and computers. Computers and Graphics, 2009, 33, 484-495.	1.4	48
98	Image Segmentation Using Excess Entropy. Journal of Signal Processing Systems, 2009, 54, 205-214.	1.4	19
99	From obscurances to ambient occlusion: A survey. Visual Computer, 2009, 25, 181-196.	2.5	39
100	Specular Effects on the GPU: State of the Art. Computer Graphics Forum, 2009, 28, 1586-1617.	1.8	8
101	Image Segmentation Using Information Bottleneck Method. IEEE Transactions on Image Processing, 2009, 18, 1601-1612.	6.0	44
102	A New Approach to Salt-and-Pepper Noise Removal for Color Image. , 2009, , .		3
103	Heuristic-Search-Based Light Positioning According to Irradiance Intervals. Lecture Notes in Computer Science, 2009, , 128-139.	1.0	4
104	Information Theory Tools for Viewpoint Selection, Mesh Saliency and Geometry Simplification. Studies in Computational Intelligence, 2009, , 41-61.	0.7	0
105	Viewpoint-based simplification using f-divergences. Information Sciences, 2008, 178, 2375-2388.	4.0	21
106	Improving Multipath Radiosity with Bundles of Parallel Lines. Computer Graphics Forum, 2008, 27, 1632-1646.	1.8	0
107	Efficient reuse of paths for random walk radiosity. Computers and Graphics, 2008, 32, 65-81.	1.4	8
108	Viewpoint-driven simplification using mutual information. Computers and Graphics, 2008, 32, 451-463.	1.4	21

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109	Informational Aesthetics Measures. IEEE Computer Graphics and Applications, 2008, 28, 24-34.	1.0	116
110	Viewpoint-Based Ambient Occlusion. IEEE Computer Graphics and Applications, 2008, 28, 44-51.	1.0	13
111	Similarity-Based Exploded Views. Lecture Notes in Computer Science, 2008, , 154-165.	1.0	7
112	GPU-Based Techniques for Global Illumination Effects. Synthesis Lectures on Computer Graphics and Animation, 2008, 2, 1-275.	0.1	4
113	Efficient Ray Tracing Using Interval Analysis. , 2008, , 1351-1360.		2
114	A Novel Adaptive Sampling by Tsallis Entropy. , 2007, , .		7
115	A New Approach to Impulse Noise Removal for Color Image. , 2007, , .		1
116	Fast GPU-based reuse of paths in radiosity. Monte Carlo Methods and Applications, 2007, 13, .	0.3	0
117	A New Adaptive Sampling Technique for Monte Carlo Global Illumination. , 2007, , .		1
118	A Generalised-Mutual-Information-Based Oracle for Hierarchical Radiosity. Lecture Notes in Computer Science, 2007, , 105-113.	1.0	9
119	Registration-Based Segmentation Using the Information Bottleneck Method. Lecture Notes in Computer Science, 2007, , 130-137.	1.0	8
120	Guaranteed Adaptive Antialiasing Using Interval Arithmetic. Lecture Notes in Computer Science, 2007, , 166-169.	1.0	0
121	A unified information theory framework for viewpoint selection and mesh saliency. , 2007, , .		O
122	A New Way to Re-using Paths., 2007,, 741-750.		3
123	A Monte Carlo-Based Fiber Tracking Algorithm using Diffusion Tensor MRI. , 2006, , .		1
124	Compression-based Image Registration. , 2006, , .		11
125	Importance-Driven Focus of Attention. IEEE Transactions on Visualization and Computer Graphics, 2006, 12, 933-940.	2.9	136
126	Computational Aesthetics 2005 Eurographics Workshop on Computational Aesthetics in Graphics, Visualization and Imaging Girona, Spain, 18-20 May 2005. Computer Graphics Forum, 2006, 25, 145-146.	1.8	5

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127	Realtime automatic selection of good molecular views. Computers and Graphics, 2006, 30, 98-110.	1.4	21
128	Adaptive sampling based on fuzzy inference. , 2006, , .		1
129	Fuzziness Driven Adaptive Sampling for Monte Carlo Global Illuminated Rendering. Lecture Notes in Computer Science, 2006, , 148-159.	1.0	3
130	Systematic Sampling in Image-Synthesis. Lecture Notes in Computer Science, 2006, , 449-458.	1.0	1
131	Techniques for Computing Viewpoint Entropy of a 3D Scene. Lecture Notes in Computer Science, 2006, , 263-270.	1.0	10
132	Medical Image Registration Based on BSP and Quad-Tree Partitioning. Lecture Notes in Computer Science, 2006, , 1-8.	1.0	2
133	High-Dimensional Normalized Mutual Information for Image Registration Using Random Lines. Lecture Notes in Computer Science, 2006, , 264-271.	1.0	23
134	Improving the Interval Ray Tracing of Implicit Surfaces. Lecture Notes in Computer Science, 2006, , 655-664.	1.0	11
135	Medical image registration based on random line sampling. , 2005, , .		6
136	Point sampling with uniformly distributed lines. , 2005, , .		6
137	Point-Based Modeling from a Single Image. Lecture Notes in Computer Science, 2004, , 245-251.	1.0	1
138	Reusing paths in radiosity and global illumination. Monte Carlo Methods and Applications, 2004, $10$ , .	0.3	3
139	Fast Multipath Radiosity using Hierarchical Subscenes. Computer Graphics Forum, 2004, 23, 43-53.	1.8	3
140	Real-time Light Animation. Computer Graphics Forum, 2004, 23, 291-299.	1.8	9
141	Combined Correlated and Importance Sampling in Direct Light Source Computation and Environment Mapping. Computer Graphics Forum, 2004, 23, 585-593.	1.8	15
142	Combining light animation with obscurances for glossy environments. Computer Animation and Virtual Worlds, 2004, 15, 463-470.	0.7	1
143	Bandwidth reduction for remote navigation systems through view prediction and progressive transmission. Future Generation Computer Systems, 2004, 20, 1251-1262.	4.9	4
144	Medical Image Segmentation Based on Mutual Information Maximization. Lecture Notes in Computer Science, 2004, , 135-142.	1.0	21

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145	Automatic View Selection Using Viewpoint Entropy and its Application to Image-Based Modelling. Computer Graphics Forum, 2003, 22, 689-700.	1.8	139
146	Fast, realistic lighting for video games. IEEE Computer Graphics and Applications, 2003, 23, 54-64.	1.0	47
147	Fast Adaptive Selection of Best Views. Lecture Notes in Computer Science, 2003, , 295-305.	1.0	9
148	Real-time obscurances with color bleeding. , 2003, , .		15
149	Combining global and local global-illumination algorithms. , 2003, , .		3
150	Perception-Based Illumination Information Measurement and Light Source Placement. Lecture Notes in Computer Science, 2003, , 306-316.	1.0	11
151	A Multiple Depth Buffer Implementation for Radiosity. Lecture Notes in Computer Science, 2003, , 346-355.	1.0	1
152	Information-Theory-Based Oracles for Hierarchical Radiosity. Lecture Notes in Computer Science, 2003, , 275-284.	1.0	1
153	Optimal ray shooting in Monte Carlo radiosity. Computers and Graphics, 2002, 26, 351-354.	1.4	2
154	Image-Based Modeling Using Viewpoint Entropy. , 2002, , 267-279.		7
155	A hardware based implementation. , 2002, , 377-388.		3
156	New Contrast Measures for Pixel Supersampling. , 2002, , 439-451.		14
157	Bandwidth Reduction Techniques for Remote Navigation Systems. Lecture Notes in Computer Science, 2002, , 249-257.	1.0	1
158	Optimal Absorption Probabilities for Random Walk Radiosity. Graphical Models, 2000, 62, 56-70.	1.1	1
159	Extended Ambient Term. Journal of Graphics Tools, 2000, 5, 1-7.	0.5	5
160	Application of Quasi-Monte Carlo Sampling to the Multi Path Method for Radiosity., 2000, , 163-176.		2
161	Weighted Importance Sampling Techniques for Monte Carlo Radiosity. Eurographics, 2000, , 35-46.	0.4	11
162	An Information Theory Framework for the Analysis of Scene Complexity. Computer Graphics Forum, 1999, 18, 95-106.	1.8	33

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163	Information Theory Tools for Scene Discretization. Eurographics, 1999, , 95-106.	0.4	1
164	Gathering for Free in Random Walk Radiosity. Eurographics, 1999, , 89-94.	0.4	0
165	Random walk radiosity with infinite path length. Computers and Graphics, 1998, 22, 161-166.	1.4	0
166	Hierarchical Monte Carlo Radiosity. Eurographics, 1998, , 259-268.	0.4	18
167	A new Form Factor Analogy and its Application to Stochastic Global Illumination Algorithms. Eurographics, 1998, , 35-44.	0.4	2
168	Optimal Source Selection in Shooting Random Walk Monte Carlo Radiosity. Computer Graphics Forum, 1997, 16, C301-C308.	1.8	4
169	Error and complexity of random walk Monte Carlo radiosity. IEEE Transactions on Visualization and Computer Graphics, 1997, 3, 23-38.	2.9	14
170	Optimal Source Selection in Shooting Random Walk Monte Carlo Radiosity. Computer Graphics Forum, 1997, 16, C301.	1.8	0
171	Global multipath Monte Carlo algorithms for radiosity. Visual Computer, 1996, 12, 47-61.	2.5	25
172	The Multi-Frame Lighting Method: A Monte Carlo Based Solution for Radiosity in Dynamic Environments. Eurographics, 1996, , 185-194.	0.4	9
173	Global multipath Monte Carlo algorithms for radiosity. Visual Computer, 1996, 12, 47-61.	2.5	6
174	Global Monte Carlo. A Progressive Solution. Eurographics, 1995, , 231-239.	0.4	6
175	An Integral Geometry Based Method for Fast Form-Factor Computation. Computer Graphics Forum, 1993, 12, 409-420.	1.8	36
176	An information theoretic framework for image segmentation. , 0, , .		12
177	Random walk radiosity with generalized absorption probabilities. , 0, , .		1
178	View-dependent information theory quality measures for pixel sampling and scene discretization in flatland. , 0, , .		1
179	Reuse of paths in light source animation. , 0, , .		2
180	Shape complexity based on mutual information. , 0, , .		13

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#	Article	IF	CITATIONS
181	Estimation of the Probability of Congestion Using Monte Carlo Method in OPS Networks. , 0, , .		O
182	Marker-Based Framework for Structural Health Monitoring of Civil Infrastructure. Applied Mechanics and Materials, 0, 378, 539-545.	0.2	1
183	Test Installation of a Marker-Based Framework for Structural Health Monitoring of Bridges. Applied Mechanics and Materials, 0, 477-478, 813-816.	0.2	O