FrÃ©dÃ©ric Dufaux

List of Publications by Year
in descending order

88 papers	819 citations	840776 11 h-index	752698 20 g-index
89 all docs	89 docs citations	89 times ranked	616 citing authors

#	Article	IF	Citations
1	Learning Convolutional Transforms for Lossy Point Cloud Geometry Compression. , 2019, , .		110
2	Deep Tone Mapping Operator for High Dynamic Range Images. IEEE Transactions on Image Processing, 2020, 29, 1285-1298.	9.8	74
3	Improved Deep Point Cloud Geometry Compression. , 2020, , .		63
4	Extended Selective Encryption of H.264/AVC (CABAC)- and HEVC-Encoded Video Streams. IEEE Transactions on Circuits and Systems for Video Technology, 2017, 27, 892-906.	8.3	60
5	An extensive performance evaluation of full-reference HDR image quality metrics. Quality and User Experience, 2017, 2, 1.	3.9	36
6	Learning-Based Tone Mapping Operator for Efficient Image Matching. IEEE Transactions on Multimedia, 2019, 21, 256-268.	7.2	30
7	Efficient Multi-Strategy Intra Prediction for Quality Scalable High Efficiency Video Coding. IEEE Transactions on Image Processing, 2019, 28, 2063-2074.	9.8	29
8	Folding-Based Compression Of Point Cloud Attributes. , 2020, , .		24
9	The Relation Between MOS and Pairwise Comparisons and the Importance of Cross-Content Comparisons. IS&T International Symposium on Electronic Imaging, 2018, 30, 1-6.	0.4	16
10	Blind Quality Estimation by Disentangling Perceptual and Noisy Features in High Dynamic Range Images. IEEE Transactions on Image Processing, 2018, 27, 1512-1525.	9.8	14
11	Fast Depth and Inter Mode Prediction for Quality Scalable High Efficiency Video Coding. IEEE Transactions on Multimedia, 2020, 22, 833-845.	7.2	14
12	Deep Learning-Based Quality Assessment Of 3d Point Clouds Without Reference. , 2021, , .		14
13	Keypoint Detection in RGBD Images Based on an Anisotropic Scale Space. IEEE Transactions on Multimedia, 2016, 18, 1762-1771.	7.2	13
14	A novel deep network architecture for reconstructing RGB facial images from thermal for face recognition. Multimedia Tools and Applications, 2019, 78, 25259-25271.	3.9	13
15	Short-Distance Intra Prediction of Screen Content in Versatile Video Coding (VVC). IEEE Signal Processing Letters, 2018, 25, 1690-1694.	3.6	12
16	Intra Block-DPCM with Layer Separation of Screen Content in VVC. , 2019, , .		12
17	Imperceptible non-blind watermarking and robustness against tone mapping operation attacks for high dynamic range images. Multimedia Tools and Applications, 2018, 77, 24521-24535.	3.9	11
18	Visual attention-aware quality estimation framework for omnidirectional video using spherical Voronoi diagram. Quality and User Experience, 2020, 5, 1.	3.9	11

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19	Self-Supervised Learning for Autonomous Vehicles Perception: A Conciliation Between Analytical and Learning Methods. IEEE Signal Processing Magazine, 2021, 38, 31-41.	5.6	11
20	EVA: An Explainable Visual Aesthetics Dataset. , 2020, , .		11
21	Probability-Based Fast Intra Prediction Algorithm for Spatial SHVC. IEEE Transactions on Broadcasting, 2022, 68, 83-96.	3.2	11
22	Dynamic range expansion of video sequences: A subjective quality assessment study. , 2014, , .		10
23	Learning-based tone mapping operator for image matching. , 2017, , .		9
24	Fast Depth and Mode Decision in Intra Prediction for Quality SHVC. IEEE Transactions on Image Processing, 2020, 29, 6136-6150.	9.8	9
25	Cycle-consistent generative adversarial neural networks based low quality fingerprint enhancement. Multimedia Tools and Applications, 2020, 79, 18569-18589.	3.9	9
26	Perceived dynamic range of HDR images. , 2016, , .		8
27	Optimizing tone mapping operators for keypoint detection under illumination changes. , 2016, , .		8
28	An evaluation of HDR image matching under extreme illumination changes. , 2016, , .		8
29	A color intensity invariant low-level feature optimization framework for image quality assessment. Signal, Image and Video Processing, 2016, 10, 1169-1176.	2.7	8
30	Low Complexity Versatile Video Coding (VVC) for Low Bitrate Applications. , 2019, , .		8
31	Counter-examples generation from a positive unlabeled image dataset. Pattern Recognition, 2020, 107, 107527.	8.1	8
32	A model of perceived dynamic range for HDR images. Signal Processing: Image Communication, 2017, 51, 26-39.	3.2	7
33	Fast Inter Mode Predictions for SHVC. , 2019, , .		7
34	Query-by-example HDR image retrieval based on CNN. Multimedia Tools and Applications, 2021, 80, 15413-15428.	3.9	7
35	HDR Video Coding based on a temporally constrained Tone Mapping Operator. , 2016, , .		6
36	An image smoothing operator for fast and accurate scale space approximation. , 2016, , .		6

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37	A railroad detection algorithm for infrastructure surveillance using enduring airborne systems. , 2017, , .		6
38	Learning-based adaptive tone mapping for keypoint detection. , 2017, , .		6
39	Spatio-temporal constrained tone mapping operator for HDR video compression. Journal of Visual Communication and Image Representation, 2018, 55, 166-178.	2.8	6
40	Tone Mapping Operators: Progressing Towards Semantic-Awareness. , 2020, , .		6
41	AVC to HEVC transcoder based on quadtree limitation. Multimedia Tools and Applications, 2017, 76, 8991-9015.	3.9	5
42	Effect of color space on high dynamic range video compression performance. , 2017, , .		5
43	Optimal image compression via block-based adaptive colour reduction with minimal contour effect. Multimedia Tools and Applications, 2018, 77, 30939-30968.	3.9	5
44	Predicting Subjectivity in Image Aesthetics Assessment. , 2019, , .		5
45	A Global Appearance and Local Coding Distortion Based Fusion Framework for CNN Based Filtering in Video Coding. IEEE Transactions on Broadcasting, 2022, 68, 370-382.	3.2	5
46	Video analytical coding: When video coding meets video analysis. Signal Processing: Image Communication, 2018, 67, 48-57.	3.2	4
47	Fine-grained detection of inverse tone mapping in HDR images. Signal Processing, 2018, 152, 178-188.	3.7	4
48	Phase-shifting digital holographic data compression. Journal of Optics (India), 2019, 48, 412-428.	1.7	4
49	A deep perceptual metric for 3D point clouds. IS&T International Symposium on Electronic Imaging, 2021, 33, 257-1-257-7.	0.4	4
50	Super-resolution of HEVC videos via convex optimization. , 2016, , .		3
51	Compressed digital holography: from micro towards macro. , 2016, , .		3
52	A dual modulation algorithm for accurate reproduction of high dynamic range video. , 2016, , .		3
53	View Synthesis-based Distributed Light Field Compression. , 2020, , .		3
54	Keypoint detection in RGBD images based on an efficient viewpoint-covariant multiscale representation. , 2016, , .		2

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55	Dynamic bitrate allocation of interactive real-time streamed multi-view video with view-switch prediction. Signal, Image and Video Processing, 2017, 11, 1279-1285.	2.7	2
56	Intra prediction using in-loop residual coding for the post-HEVC standard. , 2017, , .		2
57	TRISK: A local features extraction framework for texture-plus-depth content matching. Image and Vision Computing, 2018, 71, 1-16.	4.5	2
58	Learning Local Distortion Visibility from Image Quality. , 2018, , .		2
59	Transform Coefficient Coding for Screen Content in Versatile Video Coding (VVC). , 2019, , .		2
60	Adaptive multi-view video streaming using side information over peer-to-peer networks. Multimedia Tools and Applications, 2019, 78, 7225-7242.	3.9	2
61	A Convex Optimization Framework for Video Quality and Resolution Enhancement From Multiple Descriptions. IEEE Transactions on Image Processing, 2019, 28, 1661-1674.	9.8	2
62	A Comprehensive Analysis of Crowdsourcing for Subjective Evaluation of Tone Mapping Operators. IS&T International Symposium on Electronic Imaging, 2021, 33, 262-1-262-7.	0.4	2
63	Combination of Deep Learning-Based and Handcrafted Features for Blind Image Quality Assessment. , 2021, , .		2
64	Improved Deep Distributed Light Field Coding. IEEE Open Journal of Circuits and Systems, 2021, 2, 325-337.	1.9	2
65	View synthesis based on temporal prediction via warped motion vector fields. , 2016, , .		1
66	Forensic detection of inverse tone mapping in HDR images. , 2016, , .		1
67	Using region-of-interest for quality evaluation of DIBR-based view synthesis methods. , 2016, , .		1
68	Improved integral images compression based on multi-view extraction. Proceedings of SPIE, 2016, , .	0.8	1
69	Good features to track for RGBD images. , 2017, , .		1
70	Quality of experience in UHD-1 phase 2 television: The contribution of UHD+HFR technology. , 2017, , .		1
71	Statistical analysis and directional coding of layer-based HDR image coding residue. , 2017, , .		1
72	Analytical distortion aware video coding for computer based video analysis. , 2017, , .		1

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73	Robust Dynamic Range Computation for High Dynamic Range Content. IS&T International Symposium on Electronic Imaging, 2017, 2017, 151-155.	0.4	1
74	JPEG based Compression of Digital Holograms. , 2018, , .		1
75	Spotlight on the Multimedia Signal Processing Technical Committee [In the Spotlight]. IEEE Signal Processing Magazine, 2019, 36, 128-126.	5.6	1
76	Interframe-Dependent Rate-QP-Distortion Model For Video Coding And Transmission. , 2021, , .		1
77	Guest Editorial Introduction to the Special Issue on Recent Advances in Point Cloud Processing and Compression. IEEE Transactions on Circuits and Systems for Video Technology, 2021, 31, 4555-4560.	8.3	1
78	An iterative algorithm for image rendering on High Dynamic Range displays. , 2016, , .		0
79	Background simplification for ROI-oriented low bitrate video coding. , 2016, , .		0
80	Statistical analysis of residue signal for backward compatible HDR image coding. , 2017, , .		0
81	A study of norms in convex optimization super-resolution from compressed sources. , 2017, , .		0
82	Video enhancement with convex optimization methods. , 2018, , .		0
83	Hybrid Learning-Based And Hevc-Based Coding Of Light Fields. , 2020, , .		0
84	Just Noticeable Quantization Levels For High Dynamic Range Images. , 2020, , .		0
85	A Deep Point Cloud Geometry Coding Toolbox. , 2021, , .		0
86	Perceived Dynamic Range of HDR Images with no Semantic Information. IS&T International Symposium on Electronic Imaging, 2018, 2018, 1-6.	0.4	0
87	An Experimental Method to Determine Quantization Levels for High Luminance Patterns. , 2020, , .		0
88	Learning-based lossless light field compression. , 2021, , .		0