

# Hermann Hellwagner

## List of Publications by Year in descending order

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176  
papers

2,635  
citations

393982

19  
h-index

395343

33  
g-index

192  
all docs

192  
docs citations

192  
times ranked

1906  
citing authors

#	ARTICLE	IF	CITATIONS
1	QoCoVi: QoE- and cost-aware adaptive video streaming for the Internet of Vehicles. Computer Communications, 2022, 190, 1-9.	3.1	3
2	A Quadtree-based synchronization protocol for inter-server game state synchronization. Computer Networks, 2021, 185, 107723.	3.2	4
3	LwTE: Light-Weight Transcoding at the Edge. IEEE Access, 2021, 9, 112276-112289.	2.6	10
4	OSCAR: On Optimizing Resource Utilization in Live Video Streaming. IEEE Transactions on Network and Service Management, 2021, 18, 552-569.	3.2	19
5	Multidrone Systems: More Than the Sum of the Parts. Computer, 2021, 54, 34-43.	1.2	12
6	Information Distribution in Multi-Robot Systems: Adapting to Varying Communication Conditions. , 2021, , .		2
7	Information Distribution in Multi-Robot Systems: Generic, Utility-Aware Optimization Middleware. Frontiers in Robotics and AI, 2021, 8, 685105.	2.0	0
8	Cloud, Fog, or Edge: Where to Compute?. IEEE Internet Computing, 2021, 25, 30-36.	3.2	46
9	EADAS: Edge Assisted Adaptation Scheme for HTTP Adaptive Streaming. , 2021, , .		4
10	LwTE-Live. , 2021, , .		8
11	WISH: User-centric Bitrate Adaptation for HTTP Adaptive Streaming on Mobile Devices. , 2021, , .		3
12	Active Online Learning for Social Media Analysis to Support Crisis Management. IEEE Transactions on Knowledge and Data Engineering, 2020, 32, 1445-1458.	4.0	6
13	Distributed Task Assignment in Multi-Robot Systems based on Information Utility. , 2020, , .		6
14	On Optimizing Resource Utilization in AVC-based Real-time Video Streaming. , 2020, , .		10
15	Information Distribution in Multi-Robot Systems: Utility-Based Evaluation Model. Sensors, 2020, 20, 710.	2.1	9
16	H2BR. , 2020, , .		14
17	Scalable High Efficiency Video Coding based HTTP Adaptive Streaming over QUIC. , 2020, , .		16
18	Batch-based active learning: Application to social media data for crisis management. Expert Systems With Applications, 2018, 93, 232-244.	4.4	27

#	ARTICLE	IF	CITATIONS
19	Drone networks: Communications, coordination, and sensing. <i>Ad Hoc Networks</i> , 2018, 68, 1-15.	3.4	257
20	Wireless Network Emulation for Research on Information-Centric Networking. , 2018, , .		0
21	QoE-Assured 4K HTTP Live Streaming via Transient Segment Holding at Mobile Edge. <i>IEEE Journal on Selected Areas in Communications</i> , 2018, 36, 1816-1830.	9.7	52
22	Towards a Context-Aware Forwarding Plane in Named Data Networking supporting QoS. <i>Computer Communication Review</i> , 2017, 47, 4-14.	1.5	10
23	Investigating the Performance of Pull-Based Dynamic Adaptive Streaming in NDN. <i>IEEE Journal on Selected Areas in Communications</i> , 2016, 34, 2130-2140.	9.7	54
24	Emulating NDN-based multimedia delivery. , 2016, , .		1
25	Online indexing and clustering of social media data for emergency management. <i>Neurocomputing</i> , 2016, 172, 168-179.	3.5	48
26	Media-Friendly and TCP-Friendly Rate Control Protocols for Multimedia Streaming. <i>IEEE Transactions on Circuits and Systems for Video Technology</i> , 2016, 26, 1516-1531.	5.6	13
27	A multimedia delivery system for delay-/disruption-tolerant networks. , 2015, , .		3
28	Is one second enough? Evaluating QoE for inter-destination multimedia synchronization using human computation and crowdsourcing. , 2015, , .		8
29	Modelling the impact of caching and popularity on concurrent adaptive multimedia streams in Information-Centric Networks. , 2015, , .		9
30	An Autonomous Multi-UAV System for Search and Rescue. , 2015, , .		172
31	A scalable video coding dataset and toolchain for dynamic adaptive streaming over HTTP. , 2015, , .		65
32	Adaptive video streaming for UAV networks. , 2015, , .		13
33	Towards controller-aided multimedia dissemination in Named Data Networking. , 2015, , .		3
34	Social media for crisis management: clustering approaches for sub-event detection. <i>Multimedia Tools and Applications</i> , 2015, 74, 3901-3932.	2.6	34
35	Adaptive multimedia streaming in information-centric networks. <i>IEEE Network</i> , 2014, 28, 91-96.	4.9	56
36	Using In-Network Adaptation to Tackle Inefficiencies Caused by DASH in Information-Centric Networks. , 2014, , .		13

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37	Client starvation. , 2014, , .		6
38	Piece selection algorithms for layered video streaming in P2P networks. Discrete Applied Mathematics, 2014, 167, 269-279.	0.5	7
39	Sensory effects for ambient experiences in the World Wide Web. Multimedia Tools and Applications, 2014, 70, 1141-1160.	2.6	14
40	Application-driven design of aerial communication networks. , 2014, 52, 129-137.		123
41	A hybrid MANET-DTN routing scheme for emergency response scenarios. , 2013, , .		37
42	Scalable Media Coding Enabling Content-Aware Networking. IEEE MultiMedia, 2013, 20, 30-41.	1.5	13
43	Dynamic Adaptive Streaming over HTTP/2.0. , 2013, , .		43
44	On-demand video streaming based on dynamic adaptive encrypted content chunks. , 2013, , .		5
45	An experimental analysis of Dynamic Adaptive Streaming over HTTP in Content Centric Networks. , 2013, , .		19
46	An end-to-end tool chain for Sensory Experience based on MPEG-V. Signal Processing: Image Communication, 2013, 28, 136-150.	1.8	51
47	Adaptive streaming over Content Centric Networks in mobile networks using multiple links. , 2013, , .		38
48	Evaluation of hybrid Scalable Video Coding for HTTP-based adaptive media streaming with high-definition content. , 2013, , .		17
49	Online Processing of Social Media Data for Emergency Management. , 2013, , .		4
50	Scalable video coding guidelines and performance evaluations for adaptive media delivery of high definition content. , 2013, , .		3
51	Dynamic adaptive streaming over CCN: A caching and overhead analysis. , 2013, , .		46
52	Supporting Crisis Management via Detection of Sub-Events in Social Networks. International Journal of Information Systems for Crisis Response and Management, 2013, 5, 20-36.	0.7	6
53	The Interplay of Technology Development and Media Convergence: Examples. , 2013, , 205-220.		0
54	Automatic sub-event detection in emergency management using social media. , 2012, , .		74

#	ARTICLE	IF	CITATIONS
55	A toolset for the authoring, simulation, and rendering of sensory experiences. , 2012, , .		14
56	Comparison of piece-picking algorithms for layered video content in peer-to-peer networks. , 2012, , .		2
57	Assessing the quality of sensory experience for multimedia presentations. Signal Processing: Image Communication, 2012, 27, 909-916.	1.8	29
58	Implications of the ISO base media file format on adaptive HTTP streaming of H.264/SVC. , 2012, , .		9
59	Investigating the impact of sensory effects on the Quality of Experience and emotional response in web videos. , 2012, , .		41
60	Sensory effect dataset and test setups. , 2012, , .		17
61	Supporting Crisis Management via Sub-event Detection in Social Networks. , 2012, , .		14
62	Automatic Identification of Crisis-Related Sub-events Using Clustering. , 2012, , .		16
63	Secure transport and adaptation of MC-EZBC video utilizing H.264-based transport protocols. Signal Processing: Image Communication, 2012, 27, 192-207.	1.8	1
64	Bounded non-deterministic planning for multimedia adaptation. Applied Intelligence, 2012, 36, 29-60.	3.3	1
65	Enhancing the User Experience with the Sensory Effect Media Player and AmbientLib. Lecture Notes in Computer Science, 2012, , 624-626.	1.0	1
66	Efficient SVC-to-AVC Conversion at a Media Aware Network Element. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2012, , 582-588.	0.2	0
67	In-network adaptation of H.264/SVC for HD video streaming over 802.11g networks. , 2011, , .		5
68	Evaluation of HTTP-based request-response streams for internet video streaming. , 2011, , .		40
69	Sensory Experience for Videos on the Web. , 2011, , .		6
70	Evaluating the networking performance of Linux-based home router platforms for multimedia services. , 2011, , .		1
71	Quality impact of Scalable Video Coding tunneling for Media-Aware content delivery. , 2011, , .		1
72	An evaluation of piece-picking algorithms for layered content in Bittorrent-based peer-to-peer systems. , 2011, , .		3

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73	Scalable Video Coding in Content-Aware Networks: Research Challenges and Open Issues. , 2011, , 349-358.		4
74	Piece Selection Algorithm for Layered Video Streaming in P2P Networks. Electronic Notes in Discrete Mathematics, 2010, 36, 1265-1272.	0.4	6
75	Improving Internet Video Streaming Performance by Parallel TCP-Based Request-Response Streams. , 2010, , .		34
76	Improving the Quality of multimedia Experience through sensory effects. , 2010, , .		45
77	Knapsack problem-based piece-picking algorithms for layered content in peer-to-peer networks. , 2010, , .		19
78	An evaluation of TCP-based rate-control algorithms for adaptive internet streaming of H.264/SVC. , 2010, , .		67
79	Towards an Improved SVC-to-AVC Rewriter. , 2010, , .		5
80	Natural-Language-Based Conversion of Images to Mobile Multimedia Experiences. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2010, , 87-90.	0.2	1
81	MPEG-21 digital items in research and practice. , 2010, , .		3
82	An Evaluation of Mobile End Devices in Multimedia Streaming Scenarios. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2010, , 400-412.	0.2	2
83	Improving IPTV services by H.264/SVC adaptation and traffic control. , 2009, , .		5
84	A test-bed for quality of multimedia experience evaluation of Sensory Effects. , 2009, , .		31
85	In-Network Real-Time Adaptation of Scalable Video Content on a WiFi Router. , 2009, , .		6
86	Efficient in-network adaptation of encrypted H.264/SVC content. Signal Processing: Image Communication, 2009, 24, 740-758.	1.8	24
87	An interoperable delivery framework for scalable media resources. IEEE Wireless Communications, 2009, 16, 58-63.	6.6	4
88	Research Directions toward User-Centric Multimedia. , 2009, , 21-42.		0
89	Codec-agnostic dynamic and distributed adaptation of scalable multimedia content. ACM Multimedia, 2009, 1, 11-12.	0.1	0
90	User-centric universal multimedia access in home networks. Visual Computer, 2008, 24, 837-845.	2.5	2

#	ARTICLE	IF	CITATIONS
91	Signal, image and video processing (SIVP) special issue on "multimedia semantics, adaptation and personalization" Editorial. Signal, Image and Video Processing, 2008, 2, 287-288.	1.7	1
92	Using MPEG-21 for cross-layer multimedia content adaptation. Signal, Image and Video Processing, 2008, 2, 355-370.	1.7	12
93	Design options and comparison of in-network H.264/SVC adaptation. Journal of Visual Communication and Image Representation, 2008, 19, 529-542.	1.7	31
94	An H.264/SVC-based adaptation proxy on a WiFi router. , 2008, , .		26
95	Multimedia Adaptation Decisions Modelled as Non-deterministic Operations. , 2008, , .		6
96	Combined Adaptation and Caching of MPEG-4 SVC in Streaming Scenarios. , 2008, , .		0
97	Performance Analysis of Scalable Video Adaptation: Generic versus Specific Approach. , 2008, , .		5
98	An interoperable multimedia delivery framework for scalable video coding based on MPEG-21 Digital Item Adaptation. , 2008, , .		2
99	Towards QoS Improvements of TCP-Based Media Delivery. , 2008, , .		13
100	Efficient Transformation of MPEG-21 Metadata for Codec-agnostic Adaptation in Real-Time Streaming Scenarios. , 2008, , .		2
101	A context-aware architecture for QoS and transcoding management of multimedia streams in smart homes. , 2008, , .		5
102	An interoperable streaming framework for scalable video coding based on MPEG-21. , 2008, , .		9
103	Context-Aware UPnP-AV Services for Adaptive Home Multimedia Systems. International Journal of Digital Multimedia Broadcasting, 2008, 2008, 1-12.	0.4	9
104	MPEG-21 Digital Item Adaptation. , 2008, , 457-463.		1
105	Dynamic and Distributed Multimedia Content Adaptation based on the MPEG-21 Multimedia Framework*. Studies in Computational Intelligence, 2008, , 3-23.	0.7	7
106	Information and Communication Systems for Mobile Emergency Response. Lecture Notes in Business Information Processing, 2008, , 213-224.	0.8	10
107	An MPEG-21-driven utility-based multimedia adaptation decision taking web service. , 2008, , .		2
108	Collaborative microdrones: applications and research challenges. , 2008, , .		21

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109	An Integrated Management Supervisor for End-to-End Management of Heterogeneous Contents, Networks, and Terminals enabling Quality of Service. , 2008, , .		6
110	Optimization-Based Multimedia Adaptation Decision-Taking. , 2008, , 699-704.		0
111	MPEG-21 Multimedia Framework. , 2008, , 463-469.		4
112	Utility Model-Based Adaptation of Multimedia Content. , 2008, , 880-886.		0
113	Generic Multimedia Content Adaptation. , 2008, , 263-271.		0
114	Knowledge-Based Multimedia Adaptation Decision-Taking. , 2008, , 391-394.		1
115	A Hybrid Recommender Strategy for Personalized Utility-Based Cross-Modal Multimedia Adaptation. , 2007, , .		6
116	A Framework for Personalized Utility-Aware IP-Based Multimedia Consumption. , 2007, , .		2
117	A Framework for Utility-Based Multimedia Adaptation. IEEE Transactions on Circuits and Systems for Video Technology, 2007, 17, 719-728.	5.6	40
118	Efficient MPEG-21-based adaptation decision-taking for scalable multimedia content. , 2007, , .		18
119	Metadata Integration and Media Transcoding in Universal-Plug-and-Play (UPnP) Enabled Networks. , 2007, , .		3
120	Design and Evaluation of a Metadata-Driven Adaptation Node. , 2007, , .		3
121	Challenges Toward User-Centric Multimedia. , 2007, , .		2
122	MuMiVA: A Multimedia Delivery Platform Using Format-Agnostic, XML-Driven Content Adaptation. , 2007, , .		5
123	Towards MPEG-21-Based Cross-Layer Multimedia Content Adaptation. , 2007, , .		8
124	Metadata-driven optimal transcoding in a multimedia proxy. Multimedia Systems, 2007, 13, 51-68.	3.0	5
125	Towards MPEG-21-Based Cross-Layer Multimedia Content Adaptation. , 2007, , .		0
126	Challenges Toward User-Centric Multimedia. , 2007, , .		0



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127	Real-time DVB-based MPEG-21 Digital Item Adaptation for live Universal Multimedia Access. Proceedings ELMAR, 2006, , .	0.0	1
128	Fast Adaptation Decision Taking for Cross-Modal Multimedia Content Adaptation. , 2006, , .		9
129	QBIX-G: a transcoding multimedia proxy. , 2006, 6071, 139.		2
130	Realtime automatic metal extraction of medical x-ray images for contrast improvement. , 2006, 6144, 1929.		1
131	Comparison of XML serializations: cost benefits versus complexity. Multimedia Systems, 2006, 12, 101-115.	3.0	2
132	A knowledge-based framework for multimedia adaptation. Applied Intelligence, 2006, 24, 109-125.	3.3	52
133	<title>Efficient processing of MPEG-21 metadata in the binary domain</title>. , 2005, , .		3
134	DVB-based MPEG-21 digital items for adaptive multimedia streaming. , 2005, , .		1
135	Automatic adaptation of streaming multimedia content in a dynamic and distributed environment. , 2005, , .		20
136	Combining Stream Switching with Fine-Grained Intra-Stream Adaptation for Adaptive Video Streaming. , 2005, , .		1
137	Bitstream syntax description-based adaptation in streaming and constrained environments. IEEE Transactions on Multimedia, 2005, 7, 463-470.	5.2	50
138	Interoperable adaptive multimedia communication. IEEE MultiMedia, 2005, 12, 74-79.	1.5	25
139	<title>Knowledge-based media adaptation</title>. , 2004, 5601, 111.		1
140	Toward Semantic Web Services for Multimedia Adaptation. Lecture Notes in Computer Science, 2004, , 641-652.	1.0	3
141	An Extensible Framework for Knowledge-Based Multimedia Adaptation. Lecture Notes in Computer Science, 2004, , 144-153.	1.0	2
142	Offensive and defensive adaptation in distributed multimedia systems. Computer Science and Information Systems, 2004, 1, 45-73.	0.7	6
143	Bitstream syntax description: a tool for multimedia resource adaptation within MPEG-21. Signal Processing: Image Communication, 2003, 18, 721-747.	1.8	53
144	Metadata driven adaptation in the ADMITS project. Signal Processing: Image Communication, 2003, 18, 749-766.	1.8	34

#	ARTICLE	IF	CITATIONS
145	A protocol for adaptation-aware multimedia streaming. , 2003, , .		1
146	Architecture of a quality based intelligent proxy (QBIX) for MPEG-4 videos. , 2003, , .		23
147	<title>QCTVA: quality-controlled temporal video adaptation</title>. , 2003, , .		5
148	<title>Coding format independent multimedia content adaptation using XML</title>. , 2003, , .		10
149	Topic 14 Routing and Communication in Interconnection Networks. Lecture Notes in Computer Science, 2003, , 929-929.	1.0	0
150	Comprehensive treatment of adaptation in distributed multimedia systems in the ADMITS project. , 2002, , .		8
151	VI architecture communication features and performance on the Giganet cluster LAN. Future Generation Computer Systems, 2002, 18, 421-433.	4.9	3
152	An Adaptive MPEG-4 Proxy Cache. , 2002, , 149-156.		0
153	Performance Tuning of Parallel Realtime Voice Communication Software. , 2000, , 57-60.		0
154	SCIPVM: Parallel distributed computing on SCI workstation clusters. Concurrency and Computation: Practice and Experience, 1999, 11, 121-138.	0.6	7
155	The SCI Standard and Applications of SCI. Lecture Notes in Computer Science, 1999, , 3-37.	1.0	13
156	SCI Sockets Library. Lecture Notes in Computer Science, 1999, , 209-229.	1.0	0
157	A common messaging layer for MPI and PVM over SCI. Lecture Notes in Computer Science, 1998, , 576-587.	1.0	2
158	Structured evaluation of computer systems. Computer, 1996, 29, 45-51.	1.2	8
159	Design Considerations for Scalable Parallel File Systems. Computer Journal, 1993, 36, 741-755.	1.5	6
160	Randomized Shared Memoryâ€™ Concept and Efficiency of a Scalable Shared Memory Scheme. Lecture Notes in Computer Science, 1993, , 102-117.	1.0	2
161	On the practical efficiency of Randomized Shared Memory. Lecture Notes in Computer Science, 1992, , 429-440.	1.0	4
162	LISAS â€™ Simulation tool for regular networks of finite state machines. Microprocessing and Microprogramming, 1991, 32, 645-650.	0.3	0

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163	LISAS â€” Simulation tool for regular networks of finite state machines. Microprocessing and Microprogramming, 1991, 32, 651-656.	0.3	1
164	Virtually Shared Memory Architectures for Scalable Universal Parallel Computers. , 1991, , 91-112.		1
165	CAST.FOURIER â€” An interactive method bank for generalized spectral techniques. Lecture Notes in Computer Science, 1990, , 354-366.	1.0	1
166	A systolic array with constant I/O bandwidth for the generalized Fourier transform. , 0, , .		0
167	Implementing automatic coordination on networks of workstations. , 0, , .		0
168	Modeling quality adaptation capabilities of audio-visual data. , 0, , .		1
169	RTP packetization of MPEG-4 elementary streams. , 0, , .		1
170	The design and implementation of the A2QM3 System. , 0, , .		0
171	A Knowledge and Component Based Multimedia Adaptation Framework. , 0, , .		7
172	Evaluation of models for parsing binary encoded XML-based metadata. , 0, , .		5
173	Quality variations of different priority-based temporal video adaptation algorithms. , 0, , .		3
174	Transport mechanisms for metadata-driven distributed multimedia adaptation. , 0, , .		3
175	An Evaluation of Existing Metadata Compression and Encoding Technologies for MPEG-21 Applications. , 0, , .		6
176	Scalable Video Coding. Advances in Multimedia and Interactive Technologies Book Series, 0, , 1-23.	0.1	0