### PERSONAL INFORMATION

Name	Manfred Hauswirth
Birthday	February 8, 1966
Nationality	Austrian

### **CONTACT INFORMATION**

Technische Universität Berlin, EECS Open Distributed Systems (ODS) Einsteinufer 25, HFT 3 10587 Berlin http://www.ods.tu-berlin.de Fraunhofer FOKUS http://www.fokus.fraunhofer.de

### **RESEARCH INTERESTS**

Data stream processing, Big Data and analytics, quantum computing, cyber-physical systems, artificial intelligence, data management, Internet of Things, security in distributed systems

#### SHORT CV

Prof. Dr. Manfred Hauswirth is the managing director (CEO) of the Fraunhofer Institute for Open Communication Systems (FOKUS) and a full professor for "Open Distributed Systems" at the Technical University Berlin. Before he had been deputy director of the Digital Enterprise Research Institute (DERI, now DSI) and a professor at the National University of Ireland, Galway.

His research is on distributed information systems, Internet of Things, data stream processing and Linked Data, semantics and AI. He has won several international awards for his work in these areas and is active in many scientific and political committees around digitization.

He is a director and principal investigator in the Weizenbaum Institute, the German Internet Institute, and a principal investigator in the Einstein Center Digital Future (ECDF), in the Berlin Big Data Center (BBDC), in the Berlin Institute for the Foundations of Learning and Data (BIFOLD) and in the Helmholtz-Einstein International Berlin Research School in Data Science (HEIBRIDS). Manfred Hauswirth is an Associate Editor of the IEEE Transactions on Services Computing and of the ACM Transactions on Internet Technology, a member of the IEEE Computer Society Conference Advisory Committee, partner in the Web Science Trust Network of Laboratories (WSTNet), co-speaker for the Fraunhofer strategic research field quantum computing and speaker of the competency network quantum computing of Fraunhofer, speaker of Fraunhofer's Berlin Center for Digital Transformation (2016-2018), speaker of the Fraunhofer Center for the Security of Socio-Technical Systems (SIRIOS), a director of the Fraunhofer Academy, as well as a member in numerous boards, committees and expert networks around digitization.

Manfred Hauswirth is a senior member of the Institute of Electrical and Electronics Engineers (IEEE) and a senior member of the Association for Computing Machinery (ACM) and a member of the German Informatics Society (GI).

Born 1966 in St. Johann im Pongau, Salzburg, studied computer science the Technical University Vienna (Dipl.-Ing., 1993, Dr. techn., 1999), 2002-2006 senior researcher École Polytechnique Fédérale de Lausanne (EPFL), 2006-2014 professor National University of Ireland, Galway and deputy director Digital Enterprise Research Institute (DERI, now DSI). Since 2014 managing director (CEO) Fraunhofer Institute for Open Communication Systems (FOKUS) and full professor for "Open Distributed Systems" at Technical University Berlin.

#### CAREER

- 2022 today Co-speaker "Fraunhofer Strategic Research Field Quantum Technologies"
- 2021 today Speaker "Fraunhofer Center for the Security of Socio-Technical Systems" (SIRIOS)
- 2020 today Speaker "Excellency Network Quantum Computing" Fraunhofer Gesellschaft
- 2019 today Co-speaker "Quantum Computing" Fraunhofer Gesellschaft
- 2018 today Principal Investigator Berlin Big Data Center (BBDC)

Principal Investigator Berlin Institute for the Foundations of Learning (BIFOLD)	
Director / Principal Investigator Weizenbaum Institute, Germany	
Principal Investigator Einstein Center Digital Future (ECDF), Germany	
Speaker Fraunhofer Center of Excellence "Digital Networking"	
Principal Investigator Fraunhofer Center of Excellence "Digital Networking"	
Full Professor for Open Distributed Systems TU Berlin, Germany	
Managing Director, Fraunhofer FOKUS, Berlin, Germany	
Offer for full professor University of Lübeck, Germany (declined)	
Offer for full professor University of Innsbruck, Austria (declined)	
Personal Professor, National University of Ireland, Galway	
Vice Director, Digital Enterprise Research Institute (DERI), Galway, Ireland	
Research Associate, EPFL, Lausanne, Switzerland	
Offer for professor, Università della Svizzera Italiana, Lugano, Switzerland	
(declined)	

## **EDUCATION**

1994 - 1999	Dr. techn. (PhD, computer science), TU Vienna, Austria
1985 - 1994	DiplIng. (MSc, computer science), TU Vienna, Austria

## SELECTED PRIZES

2021	"Honourable mention" (2 <sup>nd</sup> ), SWSA Ten-Year Award	
2021	"Test-of-Time Award", 22nd IEEE International Conference on Mobile Data	
	Management	
2014	Semantic Web Challenge, International Semantic Web Conference	
2013	Best Demo Award Future Internet Assembly (among all EU projects)	
2012	Internet of Things Challenge	
2010	Best Demo Award, International Semantic Web Conference	

### **MEMBERSHIPS**

Senior Member IEEE Senior Member ACM Member GI

# **BOARDS, EDITORSHIPS AND CONFERENCES**

Associate Editor, IEEE Transactions on Services Computing (IEEE TSC) Associate Editor, ACM Transactions on Internet Technology (ACM TOIT) Guest editor, IEEE Internet Computing, special issue on "Physical-Cyber-Social Computing" (2015) Guest editor, International Journal on Semantic Web and Information Systems, special issue on "The Ubiquitous Semantic Web" (2015) International Journal of Web Services Practices (IJWSP) International Journal on Semantic Web and Information Systems (IJSWIS) Semantic Web – Interoperability, Usability, Applicability Studies on the Semantic Web

## SELECTED ALUMNI

G. Schiele	Full Professor University Duisburg-Essen, Germany	
M. Zuniga	Associate Professor, TU Delft, The Netherlands	
L. Shu	Full Professor, Nanjing Agricultural University, China and Lincoln Professor,	
	University of Lincoln, UK	

## ANNUAL COMPETITIVE THIRD-PARTY FUNDING (SELECTION)

2006 - today	€3,000.000 – €4,000.000 / year	
2013 - 2019	INSIGHT, Science Foundation Ireland	
2010 - 2017	EU projects: FIESTA, VITAL, OpenIoT, CityPulse, FiPS, GAMBAS, SPITFIRE	
2016 - today	Fraunhofer Center of Excellence "Digital Networking", Senate of Berlin and	
	Fraunhofer	
2017 - today	Weizenbaum Institute, BMBF	
2021 – today	Fraunhofer Center for the Security of Socio-Technical Systems (SIRIOS)	

## Publikationen – H-Index 56 (Google Scholar / June 6, 2022)

	All	Since 2017
Citations	13.026	3.639
h-index	56	25
i10-index	140	57

https://scholar.google.de/citations?user=WwjTJ3YAAAAJ

# SELECTED PUBLICATIONS

- 1. Michell Boerger, Philipp Lämmel, Nikolay Tcholtchev, Manfred Hauswirth: Enabling Short-Term Energy Flexibility Markets Through Blockchain. ACM Transactions on Internet Technology, 2022 (to appear).
- 2. Abdelouahab Khelifati, Mourad Khayati, Philippe Cudré-Mauroux, Adrian Hänni, Qian Liu, Manfred Hauswirth: VADETIS: An Explainable Evaluator for Anomaly Detection Techniques. ICDE 2021: 2661-2664
- Fabian Kirstein, Kyriakos Stefanidis, Benjamin Dittwald, Simon Dutkowski, Sebastian Urbanek, Manfred Hauswirth: Piveau: A Large-Scale Open Data Management Platform Based on Semantic Web Technologies. ESWC 2020: 648-664
- 4. Manh Nguyen Duc, Anh Lê Tuán, Jean-Paul Calbimonte, Manfred Hauswirth, Danh Le Phuoc: Autonomous RDF Stream Processing for IoT Edge Devices. JIST 2019: 304-319
- 5. Marcin Wylot, Manfred Hauswirth, Philippe Cudré-Mauroux, Sherif Sakr: RDF Data Storage and Query Processing Schemes: A Survey. ACM Comput. Surv. 51(4): 84:1-84:36 (2018)
- Marcin Wylot, Philippe Cudré-Mauroux, Manfred Hauswirth, Paul T. Groth: Storing, Tracking, and Querying Provenance in Linked Data. IEEE Trans. Knowl. Data Eng. 29(8): 1751-1764 (2017)
- 7. Danh Le Phuoc, Hoan Nguyen Mau Quoc, Hung Ngo Quoc, Tuan Tran Nhat, Manfred Hauswirth: The Graph of Things: A step towards the Live Knowledge Graph of connected things. J. Web Sem. 37-38: 25-35 (2016)
- 8. Danh Le Phuoc, Minh Dao-Tran, Anh Lê Tuán, Manh Nguyen Duc, Manfred Hauswirth: RDF stream processing with CQELS framework for real-time analysis. DEBS 2015: 285-292

- 9. Marcel Karnstedt, Kai-Uwe Sattler, Manfred Hauswirth: P2P-Based Query Processing over Linked Data. Linked Data Management 2014: 339-368
- 10. Vinod Hegde, Josiane Xavier Parreira, Manfred Hauswirth: Semantic Tagging of Places Based on User Interest Profiles from Online Social Networks. ECIR 2013: 218-229
- 11. Michael Compton, Payam Barnaghi, Luis Bermudez, Raul Garca Castro, Oscar Corcho, Simon Cox, John Graybeal, Manfred Hauswirth, Cory Henson, Arthur Herzog, Vincent Huang, Krzysztof Janowicz, W. David Kelsey, Danh Le Phuoc, Laurent Lefort, Myriam Leggieri, Holger Neuhaus, Andriy Nikolov, Kevin Page, Alexandre Passant, Amit Sheth, and Kerry Taylor. The SSN Ontology of the Semantic Sensor Networks Incubator Group . In: Journal of Web Semantics: Science, Services and Agents on the World Wide Web, 17: 2532, 2012.
- 12. Manfred Hauswirth, Danh Le-Phuoc, Minh Dao-Tran, and Josiane Xavier Parreira. A native and adaptive approach for unified processing of linked streams and linked data . In: International Semantic Web Conference, 2011.
- 13. Manfred Hauswirth, Danh Le Phuoc, Axel Polleres, Giovanni Tummarello, and Christian Morbidoni. Rapid Prototyping of Semantic Mash-Ups through Semantic Web Pipes . In: 18th International World Wide Web Conference, 2009.
- 14. Manfred Hauswirth, Karl Aberer, Philippe Cudre-Mauroux, AnwitamanDatta, Zoran Despotovic, Magdalena Punceva, and Roman Schmidt.P-Grid: A Self-organizing Structured P2P System. In: SIGMOD Record, 32(3), September 2003.
- 15. Manfred Hauswirth, Karl Aberer, and Ali Salehi. Infrastructure for data processing in largescale interconnected sensor networks. In: 8th International Conference on Mobile Data Management (MDM), 2007.
- 16. Manfred Hauswirth, Karl Aberer, and Philippe Cudré-Mauroux. The Chatty Web: Emergent Semantics through Gossiping. In: Twelfth International World Wide Web Conference, 2003.
- 17. Manfred Hauswirth, Karl Aberer, Magdalena Punceva, Roman Schmidt. Improving Data Access in P2P Systems. In: IEEE Internet Computing, 6(1), January/February 2002.
- 18. Manfred Hauswirth, Karl Aberer, and Philippe Cudré-Mauroux, Tim van Pelt. Grid-Vine: Building Internet-Scale Semantic Overlay Networks. In: International Semantic Web Conference, 2004.
- 19. Manfred Hauswirth, Anwitaman Datta, and Karl Aberer. Updates in Highly Unreliable, Replicated Peer-to-Peer Systems. In: International Conference on DistributedComputing Systems (ICDCS), 2003.