Curriculum Vitae

Priv.-Doz. Dr. Matthias Klusch

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1. Personal Data

Name, Title: Matthias Klusch, Priv.-Doz. Dr. rer. nat.

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66121 Saarbrücken, Germany

Phone & Fax: +49-681-8317676 (AB)

Birth Date/Place: 19.04.1965 / Berlin, Germany

Nationality: German

Occupations: Principal Researcher and DFKI Research Fellow

German Research Center for Artificial Intelligence (DFKI) GmbH

in Saarbrücken, Germany.

Head of Research Team for Intelligent Information Systems (I2S).

Private Docent for Computer Science

Saarland University

Computer Science Department, MI Junior Faculty

Head of Research Group Intelligent Information Systems

in Saarbrücken, Germany.

Scientific Impact: h = 42, Citations 8808 (google scholar)

2. Education

July 2009	Habilitation (PD, Dr. habil.) in Computer Science from the University of the Saarland, Saarbrücken, Germany. Thesis: On Agent-Based Semantic Service Cordination. Commission: Profs. M. Backes, W. Decker, M. Fuchs, M. Hein, J. Siekmann (Mentor), P. Slusallek, H. Uszkoreit, W. Wahlster, G. Weikum (Chair)
April 1997	Ph.D. (Doctorate, Dr. rer. nat.) in Computer Science from the Christian-Albrechts-University of Kiel, Kiel, Germany. Thesis: <i>Cooperative Information Agents in the Internet</i> .
1992	M.Sc. (Diploma, DiplInform.) in Computer Science from the Christian-Albrechts-University of Kiel, Kiel, Germany. Thesis: Development of a Hybrid Neural System for the Classification of Stars.
1987	B.Sc. in Computer Science from the Christian-Albrechts-University of Kiel, Kiel, Germany.
1985 – 1992	Studies of Computer Science and Mathematics at the Institute for Computer Science and Applied Mathematics of the Christian-Albrechts-University of Kiel, Kiel, Germany.
1984 - 1985	German Military Service (W15)
1984	A-Level General Certificate of Education (Abitur) from the Secondary School "Herder Gymnasium" in Rendsburg, Germany.
1971 – 1984	Visits to schools in Berlin, Lübeck and Rendsburg, Germany.

3. Academic and Professional Career

Since 11/2020 Principal Researcher

German Research Center for Artificial Intelligence (DFKI).

Saarbrücken, Germany.

Head of Research Team Intelligent Information Systems (I2S).

Since 1/2018 Speaker of Al Chapter of the German Society for Informatics

Since 7/2009 Private Docent of Computer Science (Privatdozent, PD)

Saarland University,

Faculty for Mathematics and Informatics.

Saarbrücken, Germany.

4/2008 – 2/2014 Adjunct Professor of Computer Science

Swinburne University of Technology

Faculty of Information and Communication Technologies

Melbourne, Australia.

Since 7/2003 **DFKI Research Fellow**

3/2000 – 3/2002 Assistant Professor (Universiteits Docent, TUD)

Vrije Universiteit Amsterdam

Faculty of Sciences, Department of Artificial Intelligence.

Amsterdam, The Netherlands.

4/1999 - 10/2020 Senior Researcher

German Research Center for Artificial Intelligence (DFKI).

Saarbrücken, Germany.

Head of Research Team Intelligent Information Systems (I2S) Co-Head of Research Group Multiagent Systems (2004 – 2011) Dpty Head of Research Group Multiagent Systems (1999 – 2004)

1/1998 – 12/1998 Postdoctoral Research Fellow

Carnegie Mellon University, School of Computer Science,

Robotics Institute. Pittsburgh, USA

4/1997 – 4/1999 Assistant Professor (Wissenschaftlicher Assistent, C1)

Chemnitz University of Technology, Department of Systems for Data

Management. Chemnitz, Germany

10/1992 – 4/1997 **Teaching and Research Assistant** (Wissenschaftlicher Mitarbeiter)

Christian-Albrechts-University of Kiel, Institute for Informatics and Applied Mathematics, Department of Systems for Information

Management. Kiel, Germany

Research areas and application domains:

Since 1999, the I2S research team performs application-oriented research and development of intelligent information systems. Main focus is on the application of Artificial Intelligence (AI), Agent Technologies, Service-Oriented Computing, and Semantic Technologies for innovative means of intelligent service coordination and decision-making in smart information systems.

Research of the I2S team on intelligent service coordination addresses the challenges of scalable, flexible, situatively optimal and high-performance semantic discovery, composition planning, negotiation, and execution of services by intelligent agents in dynamic and distributed environments. Research of the I2S team on intelligent decision-making currently focuses on trustworthy, hybrid (neuro-explicit) AI methods that integrate machine learning, reasoning and automated planning for autonomous systems, and hybrid Quantum AI methods.

Applications. The research results of the I2S team are implemented in a wide range of free open-source and partly awarded tools and benchmarks for semantic service coordination and data analysis, as well as in prototypes of intelligent information systems for various application sectors. So far, these sectors are as follows.

- Pedestrian-safe navigation by autonomous cars
- Process optimisation in cloud manufacturing
- Machine condition monitoring and maintenance
- Adaptive business processes in smart retail environments
- Intelligent simulation of virtual production lines
- Medical emergency assistance services in health care
- Smart event management and social media
- Decentralized power regulation in smart micro-grids
- Agricultural production planning and logistics

Selected system prototypes in these sectors were demonstrated at the CEBIT fair, the Hannover Industry fair (HIM), and the international Consumer Electronics Show (CES).

Scientific awards:

2013	2 nd Best Paper Award (with I. Zinnikus et al.) of 9th IEEE Intern. Conference on Collaborative Computing (CollaborateCom)
2011	Best Paper Award (with J. Richter, R. Kowalczyk) of 9 th German Conference on Multiagent System Technologies
2008	Finalist of the ACM SIGART 2008 Award for Excellence in Autonomous Agents Research
2006	Best Paper Award Finalist (with K. Sycara, B. Fries) of 5 th Intern. Conference on Autonomous Agents and Multi-Agent Systems
2005	Best Paper Award (with Bastian Blankenburg) of the 3 rd German Conference on Multiagent System Technologies
2003	DFKI Research Fellow Awarded by the DFKI "in recognition of excellent research and services for the DFKI"

Memberships of university faculties and scientific advisory boards:

Since 2008, I am member of the junior faculty of Mathematics and Informatics (MI) of the Saarland University in the position of a private docent for computer science and research group leader for intelligent information systems.

From 2008 – 2014, I have been **member of the ICT faculty of the Swinburne University of Technology** in Melbourne (Australia) in the position of an adjunct full professor of computer science.

Since 2010, I am member of the international scientific advisory board of the Centre for Intelligent Information Technologies (CETINIA) at the Universidad Rey Juan Carlos in Madrid (Spain).

Member of professional associations:

- 1. German Society for Informatics Gesellschaft für Informatik (GI) e.V. Member of GI Special Interest Groups: Künstliche Intelligenz (AI)
- 2. IEEE Computer Society
- 3. International Society of Applied Intelligence (ISAI)

4. Research Visits

3/2011 – 4/2011, 4/2009 – 5/2009 **Swinburne University of Technology**, Melbourne, Australia.

Invited 2-months visits in my position as adjunct professor at the Swinburne Faculty of Information and Communication Technologies, Centre for Complex Software Systems and Services (CS3). Joint work with professor Ryszard Kowalczyk and his group on Intelligent Agent Technologies. Research on topics of agent-based high-performance semantic service selection and automated negotiation mechanisms with applications to smart grid services infrastructures and the 3D-Internet. PhD student supervision, Lectures on relevant topics.

3/2000 - 3/2002

Vrije Universiteit Amsterdam, Amsterdam, The Netherlands.

2-years contracted employment in the position of a part-time assistant professor (TUD) of the faculty of sciences. Lecturing and joint research in the domain of cooperative information agents and systems at the department of Artificial Intelligence headed by professor Jan Treur.

1/1998 - 12/1998

Carnegie Mellon University, Pittsburgh, USA.

1-year contracted employment in the position of a visiting research scientist / postdoctoral research fellow of the Robotics Insititute (CMU staff member) for working in the Intelligent Software Agents Group headed by professor Katia Sycara. Employment grant of CMU exchange program P-1-1292. Joint research on intelligent agent-based service mediation in the Internet.

5. Research Coordination

Coordination of research groups:

Since 1999	Research Team Intelligent Information Systems (Head) at DFKI and Saarland University http://www.dfki.de/~klusch/i2s/
1998 - 2003	European Special Interest Group on Intelligent Information Agents as part of the European Netowrk of Ecellence for Agent-Based Computing AgentLink (Coordinator) http://www.agentlink.org/activities/sigs/sig3.html
1999 - 2011 2001 - 2003	Research Group Multiagent Systems (Deputy Head / Co-Head) Working Groups of the European Coordinated Action Agentcites.NET on various topics of agent technology (Coordinator)

Coordination of research projects at DFKI:

I was/am involved in the coordination of funded research projects at DFKI (see Sect. 6):

- 1. QAICO (BMBF, 2021 2023, Quantum AI for coordination and cooperation)
- 2. WELCOME (EC H2020 SC6, 2020 2023, Intelligent Conversation Agent-Based Services for Reception, Orientation and Integration of Third-Country Nationals in the EU)
- CREMA (2014 2017, EC H2020 FoF; Intelligent cloud-based manufacturing)
- 4. ICM-Hydraulic (2013-2015, HYDAC GmbH, ZeMA GmbH; ICM-Wind succ.)
- 5. ICM-Wind (2012, ZeMA GmbH, HYDAC GmbH; Hybrid semantic sensor data analysis for fluid condition monitoring in wind turbines)
- 6. SocialSensor (2011 2014, EC FP7 IP; Semantic Social Web), WP3 Leader.
- 7. Collaborate3D (2011-2014, BMB+F; Collaborative 3D simulation of realities)
- 8. EMERGENT Software Cluster (BMB+F, 2010 2015), Task Q1.G2.3 Leader
- 9. ISReal (2009-2012, BMB+F; Intelligent 3D simulation of realities)
- 10. MODEST (2008, BMB+F; Model-driven agents for semantic Web services)
- 11. AT (2008–2012, EC FP7 COST; Agreement Technologies)
- 12. SCALLOPS (2004–2007, BMB+F; Secure agent-based pervasive computing)
- 13. SEMAS (2001–2003, BMB+F; Secure Multi-Agent Systems)
- 14. AGRICOLA, AGRICOLA-2 (2001 2003, 2006, Saarland government; CASA succ.)
- 15. CASA (2000–2002, Saarland government; Agent-Based Agriculture and Forestry App)
- 16. CASCOM (2003–2007, EC FP6 STREP; Mobile Semantic Web Services)
- 17. Agentcities.RTD (2001–2003, EC FP5 STREP; Agent-Based Services)
- 18. AgentCities.NET (2001–2003, EC FP5, CA)
- 19. AgentLink I III (1998–2003; EC FP5 and FP6 CA; Agent-Based Computing)
- 20. AITelcom (2000–2001, Alcatel AG, Germany; AI for Telcom Apps)
- 21. SAP-AEP (1999–2000, SAP Retail Solutions, Germany; Agents for Dynamic Pricing)

6. Research Fund Raising

I have been involved in the acquisition of research grants for projects, PhD student scholarships, and sponsorships of scientific events funded by different sources as follows. The project funding I have acquired independently (3.8 MEUR) and collaboratively for DFKI amounts to 13.65 MEUR with project volume of 43.1 MEUR in total.

(1) European Research Projects

Project volume: 21,7 MEUR

Project funding for DFKI: 2,74 MEUR

 WELCOME – Intelligent Conversation Agent-Based Services for Reception, Management and Integration of Third-Country Nationals in the EU

Funding: 4.3 MEUR

Source: EC H2020 SC6 MIGRATION (IA)

DFKI share: 0.4 MEUR Duration: 2/2020 – 1/2023 Coordination: UPF (Spain)

Partners: 15 (UPF, CERTH, DFKI, CUNI, BUT, SHU, EVERIS, NURO, METODO, MR,

KEMEA, DTASF, CARITAS, PRAKSIS)
Objectives: https://welcome-h2020.eu/

2. CREMA – Cloud-Based Rapid Elastic Manufacturing

Funding: 4.7 MEUR

Source: EC H2020 FoF (RIA) DFKI share: 665 KEUR Duration: 1/2014 – 12/2017

Coordination: ASCORA GmbH (Germany)

Partners: 10 (ASCORA, TU Vienna, DFKI, Tenneco, FAGOR, GOIZPER, TANet,

UbiSense, ICE, DotnetIT)

Objectives: http://www.crema-project.eu/

While the theoretical foundations for Cloud manufacturing are manifest there are no proven tools and technologies exist in the market - CREMA aims to change this fact by providing Cloud-based Rapid Elastic Manufacturing based on the XaaS and Cloud model making use of intelligent service coordination by innovative use of Al and semantic technologies.

3. **SocialSensor** – Sensing User-Generated Input for Improved Media Discovery and Experience.

Funding: 6.1 MEUR Source: EC IST FP7 (IP) DFKI share: 634 KEUR

Duration: 10/2011 – 10/2014 Coordination: CERTH (Greece)

Partners: 11 including Yahoo!, DW, Alcatel-Lucent Bell, IBM

DFKI personnel: Klusch (PMB Member, WP3 Leader); Kapahnke; Hoffmann; Keller Objectives: Development and new framework for enabling real-time multimedia indexing and search in the Social Web. Mining and aggregating user inputs and content over multiple social networking sites. Social Indexing will incorporate information about the structure and activity of the users' social network directly into the multimedia analysis and search process. Enhancement of multimedia consumption experience by developing novel user-centric media visualization and browsing paradigms: Analysis of dynamic and massive user contributions in order to extract unbiased trending topics and events, and the usage of social connections for improved recommendations.

4. AT - Agreement Technologies

Funding: 0.5 MEUR

Source: EC COST Action IC0801

DFKI share: N/A (PMB travel cost reimbursement by EC directly)

Duration: 8/2008 – 6/2012

Coordination: Universidad Rey Juan Carlos (Spain); Partners: Open scheme.

DFKI personnel: Klusch (PMB Member); Keller

Objectives: http://www.cost.esf.org/index.php?id=110&action number=IC0801

CASCOM - Context-Aware Business Application Service Coordination in Mobile Computing Environments

Funding: 2.7 MEUR

Source: EC IST FP6 (STREP) DFKI share: 627 KEUR

Duration: 9/2004 – 9/2007, cost neutral prolongation to 12/2007.

Coordination: DFKI

DFKI personnel: Klusch (Scientific Co-ordinator, PMB Member); Gerber; Keller Partners: DFKI, TeliaSonera, ADETTI, EMA Group, URJC, UBasel, EPFL, FrameTech Objectives: To implement, validate, and trial a value-added supportive infrastructure

for Semantic Web based business application services across mobile and fixed

networks. http://www.ist-cascom.org

6. Agentcities.RTD

Funding: 2.47 MEUR

Source: EC IST FP5 (STREP) DFKI share: 250 KEUR Duration: 6/2001 – 6/2003

Coordination: Motorola France, Partners: 15 DFKI personnel: Klusch (PMB Member); Drugan

Objectives: To create an on-line, distributed test bed to explore and validate the

potential of agent technology for future dynamic service environments.

http://www.agentcities.org/EURTD/

7. AgentCities.NET

Funding: 868 KEUR

Source: EC IST FP5 Network of Excellence; Open Partnership Scheme

DFKI share: 166 KEUR

Duration: 11/2001 – 10/2003

Coordination: DFKI

Partners: 4 (Motorola, British Telecom, EPFL, UPC) for network management DFKI personnel: Klusch (WP6 Leader; PMB Member); Girenko (co-ordinator); Keller Objectives: To create an open dynamic service environment based on Agent technology and make it accessible to potential users. Take-up action; European

Network of Excellence. http://www.agentcities.org/EUNET/

(2) National Research Projects

Project volume: 20.45 MEUR

Project funding for DFKI: 10.42 MEUR

QAICO – Quantum Artificial Intelligence for Coordination and Cooperation
 [Teilvorhaben im Verbundprojekt QAI2 - Quantum AI for Automotive Industries]

Funding: 0.52 MEUR [DFKI]

Source: BMB+F

Duration: 4/2021 - 3/2023

Objective: basic research and development of novel hybrid quantum-classical AI (Quantum AI) algorithms for selected, computationally hard AI problems with applications in the automotive industry including optimal production planning and collision-free navigation of self-driving cars. The extent to which the adaptation of selected classical AI methods for quantum computing using suitable existing and possibly further or newly developed quantum algorithms (quantum circuits) is theoretically feasible and beneficial shall be investigated in depth. Apart from

simulation on a classical computer, the partial execution of developed hybrid QAI algorithms on a real quantum computer available for this purpose by our partners is aimed for.

Partners in QAI2: FZ Jülich (Koordinator), DFKI, BMW, Mercedes, Volkswagen, Bosch

2. **REACT** – Modelling, Learning and Simulation Environment for Pedestrian Behavior in Critical Traffic Situations

Funding: 1.45 MEUR

Source: BMB+F [DFKI Korridor]

Duration: 10/2017 – 10/2020; Extension (CrossCDR) to 4/2023:

Objective: Systematic approach for developing Intelligent Simulated Realities based on Machine Learning (especially Deep Learning and (Deep) Reinforcement Learning) of low-dimensional, sub-models, combining and configuring them into complete high-dimensional models, and (semi-)automatically identifying and covering the range of critical situations through learning. From these Simulated Realities we can generate new virtual sensor input to be used for training the target systems how to handle these critical situations.

3. **Inversiv** – Integrated Verification, Simulation and Visualization for Industrial Applications

Funding: 1.45 MEUR

Source: BMB+F [DFKI Korridor] Duration: 11/2014 – 11/2017

Objective: Extension of C3D framework with focus on run-time and dual reality based functional simulation and safety verification of manufacturing systems

virtually engineered in 3D environments.

4. **Collaborate3D** – Scalable Intelligent Support and Reliability for Collaboration in the Future 3D Internet.

Funding: 1.45 MEUR

Source: BMB+F [DFKI Korridor] Duration: 10/2011 – 10/2014

Objective: Research and development of a coherent framework for scalable intelligent support of and reliability for collaboration in the future 3D Internet. Integrated proof-of concept demonstrations focus on selected scenarios of collaborative 3D engineering in industry and science such as collaborative virtual 3D and the melocular design

product and bio-molecular design.

5. **Spitzencluster EMERGENT** – Emergent Software for Digital Enterprises in the Future Internet

Funding: 12.3 MEUR

DFKI-ASR share: 240 KEUR (aus DFKI share 1.7 MEUR)

Source: BMB+F

Duration: 7/2010 – 2015

DFKI-ASR personnel: Klusch (Task AP2.3 Lead), Warwas, Zinnikus

Objective: Adaptive model-driven business service coordination by intelligent agents

http://www.software-cluster.org/

6. ISReal – Intelligently Simulated Reality

Funding: 1.45 MEUR

Source: BMB+F [DFKI Korridor] Duration: 1/2009 – 12/2011

DFKI personnel: Klusch, Fischer, Hoffman, Demme, Stephan (TC); 4 researchers,

additional MSc students

Objective: www.dfki.de/~klusch/isreal

7. **MODEST -** Model-Driven Agents for Semantic Web Services

Funding: 245 KEUR

Source: BMB+F [DFKI Korridor] Duration: 1/2008 – 12/2008

Cooperation Partners: Saarstahl AG, TU Swinburne, URJC

DFKI personnel: Klusch, Fischer (PM); 1 PhD student, additional MSc students

Objective: www.dfki.de/~klusch/modest

8. **SCALLOPS** - Secure Agent Based Pervasive Computing

Funding: 1.45 MEUR

Source: BMB+F [DFKI Korridor]

Duration: 3/2004 – 12/2006; Prolongations: 1/2007 – 6/2007, 7/2007 – 12/2007 DFKI personnel: Klusch, Hutter (PM); 2 PhD students; additional MSc students

Objectives: http://www.dfki.de/scallops To develop a coherent, methodological framework for the design and implementation of secure agent-based pervasive computing applications. Basic research is on innovative means for flexible agent-coordinated semantic Web service discovery and composition, and effective data and service privacy enforcement in open, large scale pervasive computing environments.

9. SEMAS - Secure Multi-Agent Systems

Funding: 700 KEUR

Source: BMB+F [DFKI Korridor] Duration: 1/2001 – 12/2003

DFKI personnel: Fischer, Klusch, Hutter (PM); 2 PhD students

Objectives: To provide a specific methodology for the design and implementation of

secure mobile multi-agent systems particularly in the domain of virtual

marketplaces.

(3) Regional Research Projects

Project volume: 0,59 MEUR

Project funding for DFKI: 0,59 MEUR

1. AGRICOLA-2

Funding (DFKI share): 80 KEUR

Source: Saarland Ministry for Environment (MfU)

Duration: 1/2006 - 7/2007

Coordination: DFKI

Partners: Maschinenring des Saarlandes e.V.

DFKI Personnel: Klusch (PM), 1 Software Engineer, Advisor (MfU)

Objective: Realisation and limited field test of the prototyped AGRICOLA system.

2. AGRICOLA

Funding (DFKI share): 245 KEUR

Source: Saarland Ministry for Environment (MfU)

Duration: 1/2002 - 3/2003

Coordination: DFKI

Partners: Maschinenring des Saarlandes e.V.

DFKI Personnel: Klusch (PM), 1 PhD student; additional MSc students

Objective: Development and prototypical implementation of an agent based system AGRICOLA for dynamic resource allocation for cereal harvesting in the Saarland

region. This includes the use of mobile computing and communication devices.

3. **CASA**

Funding (DFKI share): 245 KEUR

Source: Saarland Ministry of Evironment (MfU); Saarland Ministry of Economics.

Duration: 1/2000 - 12/2002

Coordination: DFKI

Partners: TrendPlus AG, Deutsche Telekom AG

DFKI Personnel: Klusch (PM), 1 PhD student, Advisor (MfU); additional MSc students Objective: Development and protoypical implementation of an agent based system for integrated mobile services for dynamic timber production planning and trading.

KAMIL – Associated Project to CASA 1.7.-31.12.1999, DFKI share: 20 KEUR

(4) Industry Projects

Project funding for DFKI: 432.5 KEUR

1. ICM-Hydraulic

Intelligent Condition Monitoring of Hydraulic Machines. Contribution: Hybrid Semantic and Statistic Sensor Data Analysis for Fluid Condition Monitoring; Experimental analysis and development of system prototype.

Duration: 15.5.2013 – 30.3.2015

HYDAC Filter Systems GmbH, Germany; collaboration with ZeMA GmbH, Germany.

2. ICM-Wind

Contribution: Semantic Sensor Data Analysis for Fluid Condition Monitoring in Wind Turbines; Experimental analysis and development of system prototype.

Duration: 15.2.-31.8.2012

ZeMA GmbH; HYDAC Filter Systems GmbH, Germany

3. AITelcom

Al Technologies for Telecommunication Applications; Study.

Duration: 1.11.- 31.12.2000

Im Auftrag von Alcatel AG Stuttgart, Germany

4. SAP-AEP

Agents for E-Business and Dynamic Pricing for SAP/R3; Study and Software.

Duration: 1.10.1999 - 31.12.2000

Im Auftrag von SAP AG / SAP Retail Solutions, Germany

(5) PhD Scholarships

- 2003 2007: Ph.D. Scholarship funded by the Brazilian student exchange office CAPES for conducting doctoral studies at the University of the Saarland and DFKI; scholarship holder: Josenildo C. Da Silva; ca. 48 KEUR
- 2004 2008: Ph.D. Scholarship funded by the Brazilian student exchange office CAPES for conducting doctoral studies at the University of the Saarland and DFKI; scholarship holder: Helena P. Nunes (2004 – 2005); ca. 48 KEUR

(6) Sponsorships of scientific events

In my role as co-/chair of sceintific conferences, workshops, and training events, I have also raised funds from different sources for sponsoring best paper awards, system awards, student travel grants, and others. Selected sponsors from industry were HYDAC Filter Systems GmbH, Whitestein Technologies, TeliaSonera A/B, Siemens AG, Nokia, Deutsche Telekom AG, Elsevier Science, IBM Research Israel, Swiss Life AG, AutoDesk Inc., Daimler-Chrysler AG, National e-Science Institute Edinburgh, NASA Goddard Space Flight Center. Selected sponsoring scientific organisations were IFMAS International Foundation for Multi-Agent Systems, German Computer Society (GI), AEPIA Spanish Association for Artificial Intelligence, AISB (UK), and IEEE computer society standards committee FIPA.

7. Editorial Board Memberships

I am editorial board member or associate/area editor of the following scientific journals.

- International Journal of Web Semantics: Science, Services, and Agents on the Web (WebSem), Elsevier Science. Since 2007. (Area editor)
 https://www.journals.elsevier.com/journal-of-web-semantics/editorial-board
- International Journal of Intelligent Information Systems (IJIIS), Springer.
 Since 2018.
 https://www.springer.com/computer/database+management+&+information+retri
 eval/journal/10844/PSE?detailsPage=editorialBoard
- 3. International Journal of Cooperative Information Systems (IJCIS), World Scientific. Since 2002. https://www.worldscientific.com/page/ijcis/editorial-board
- 4. International Journal of Web Intelligence (**WI**, formerly WIAS Web Intelligence and Agent Systems), IOS Press.

 Since 2003. https://www.iospress.nl/journal/web-intelligence-and-agent-systems/
- 5. International Journal of Applied Decision Sciences (**ADS**), InderScience. Since 2008. http://www.inderscience.com/browse/index.php?journalID=283

Past editorial board memberships:

- 1. International Journal of Semantic Web and Information Systems (**SWIS**), IGI Global. 2007 2018. http://www.ijswis.org/
- 2. International Journal of Web Intelligence and Agent Systems (**WIAS**), IOS Press. 2003 2015. http://www.iospress.nl/loadtop/load.php?isbn=15701263
- International Journal of Knowledge and Information Systems (KAIS), Springer;
 2001 2009. http://www.cs.uvm.edu/~kais/
- 4. International Electronic Transactions on Artificial Intelligence (**ETAI**), Area: Semantic Web, 2000 2001. http://www.ida.liu.se/ext/etai/

8. Project Reviewing

I have been invited by the following national science research funding agencies to review project proposals:

- Natural Sciences and Engineering Research Council of Canada (NSERC), Canada. Since 2007.
- Chinese Research Grants Council (RGC) Hongkong, China. Since 2004.
- Italian Ministery of Education and Research Italian Ministero dell'Università e della Ricerca (MIUR), Italy. Since 2004.
- Netherlands Organization for Scientific Research (NWO), The Netherlands.
 Since 2003.
- Switzerland National Science Fund Schweizerischer Nationalfonds zur Förderung der wissenschaftlichen Forschung (FNSNF), Switzerland. Since 2003.
- Austrian National Science Fund Österreichischer Wissenschaftsfond (**FWF**), Austria. Since 2002.

9. Organisation of Conferences

I have been / am involved in the organisation of scientific events and series as follows.

9.1 Conference Series

- 1. Steering committee member of IEEE/ACM International Conference on Web Intelligence (WI), since 2015
- Co-founder, member and spokesman of the steering committee of the German conference series on Multiagent System Technologies (MATES), from 2003 to 2017. http://www.dfki.de/~klusch/mates-series/

Past organisation of scientific event series:

- 1. Founder and coordinator of the international Semantic Service Selection (S3) Contest, from 2007 to 2013. http://www.dfki.de/~klusch/s3/
- Founder and general chair of the international workshop series on Cooperative Information Agents (CIA) from 1997 to 2008. This series of 12 workshops has been ranked 55 from 620 conferences in Artificial Intelligence (by www.cs-conferenceranking.org, as of July 24, 2008). http://www.dfki.de/~klusch/IWS-CIA-home.html

9.2 Conferences and Workshops

Co-chairing of conferences:

- Co-Chair of IEEE/ACM International Conference on Web Intelligence (WI), Omaha, USA, 2016
- Co-Chair of 14th German Conference on Multiagent System Technologies (MATES), Klagenfurt, Austria, 2016
- Track Chair of 11th Extended Semantic Web Conference (ESWC), Heraklion, Greece;
 ESWC Track on Services, Processes and Cloud Computing; 2014.
- Co-Chair of the 11th German Conference on Multiagent System Technologies (MATES), Koblenz, Germany, 2013.
- Track Chair of 9th Extended Semantic Web Conference (ESWC), Heraklion, Greece; ESWC Track on Services, Processes and Cloud Computing; 2012.

- Program Vice-Chair of the 11th IEEE/ACM International Conference on Intelligent Agent Technology (IAT), Lyon, France, 2011.
- Program Committee Vice Chair of the 6th European Semantic Web Conference (ESWC), Heraklion, Greece, 2009.
- Program Co-Chair of the IEEE International Conference on Web Intelligence (WI), Sydney, Australia, 2008.
- Program Vice Chair of the 6th International Semantic Web Conference (ISWC), Busan, Korea, 2007.
- Program Co-Chair of the IEEE International Conference on Intelligent Agent Technology (IAT), Sillicon Valley, USA, 2007.
- Chair of the 5th German Conference on Multiagent System Technologies (MATES), 2007.
- Program Co-Chair of the IEEE International Conference on Intelligent Agent Technology (IAT), Hong Kong, China, 2006.
- Vice Program Committee Chair of the 4th IEEE/ACM Conference on Web Intelligence (WI), Compiegne, France, 2005.
- Chair of the 3rd German Conference on Multiagent System Technologies (MATES), Koblenz, 2005.
- Vice Program Committee Chair of the 4th International IEEE Conference on Intelligent Agent Technology (IAT 2004), October, China, 2004.
- Program Co-Chair of the 3rd International IEEE Conference on Intelligent Agent Technology (IAT 2003), October, Canada, 2003.
- Program Co-Chair of the 1st German Conference on Multiagent System Technologies (MATES), Erfurt, Germany, September 22 25, 2003.

Other committed roles of scientific event organiation:

- Co-Chair of UPLINX Machine Learning School (MLS), Saarbrücken, Germany, 2019.
- Sponsorship Co-Chair of the 15th International Conference on Principles and Practice of Multi-Agent Systems (PRIMA), 2012.

 Publicity Chair of the 4th International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS 2005), 2005.

Co-chairing of workshops / schools:

- Co-Chair of UPLINX Machine Learning School (MLS), Saarbrücken, Germany, October 9 - 11, 2019.
- Co-Chair of UPLINX Machine Learning in Industry (MLI) Workshop, Kaiserslautern, Germany, October 21-22, 2019.
- Chair of the International Workshop on Cooperative Information Agents (CIA) from 1997 to 2008 (twelve annual workshops):

1997, Kiel, Germany; 1998, Paris, France (@ Agents' World conference); 1999, Uppsala, Sweden; 2000, Boston, USA (@ ICMAS 2000 conference); 2001, Modena, Italy; 2002, Madrid, Spain; 2003, Helsinki, Finland; 2004, Erfurt, Germany (@ Net.Object Days 2004 multiconference); 2005, Koblenz, Germany (@ MATES / KI 2005 conference); 2006, Edinburgh, UK; 2007, Delft, The Netherlands; 2008, Prague, Czech Republic.

- Co-Chair of the 6th International Workshop on Service-Oriented Computing: Agents, Semantics, and Engineering (SOCASE) at the AAMAS 2008 Conference, Portugal, 2008.
- Co-Chair of the 1st International Joint Workshop on Service Matchmaking and Resource Retrieval in the Semantic Web (SMR2), 2007.
- Co-Chair of the European 3rd Agentcities Information Days, Barcelona, Spain, February 6-8, 2003.
- Co-Chair of the international AAAI Workshop on Coalition Formation in Dynamic Multiagent Environments, July 28 29, USA, 2002.
- Local Co-Chair of the 2nd European Summer School on Agent-Based Systems (EASSS 2000), Saarbrücken, August 14 18, 2000.
- Co-Chair of the International Workshop on Knowledge Representation Meets Databases (KRDB) at the ECAI 2000 Conference in Berlin, August 2000.
- Co-Chair of the 1st German Joint Workshop on DAI, Databases and Information Retrieval (VDI), Chemnitz, April 1998.

10. Program Committee Memberships

My past and current memberships of program committees (**304**) of conferences (210) and workshops (94) are listed in inverted chronological order and sorted by major research areas in the following.

10.1 Conferences

Semantic Technologies

- 1. 23rd Extended Semantic Web Conference (ESWC), 2024
- 2. 22nd Extended Semantic Web Conference (**ESWC**), 2023
- 3. 20th International Semantic Web Conference (ISWC), virtual, 2021
- 4. 18th Extended Semantic Web Conference (ESWC), virtual, 2021
- 5. 19th International Semantic Web Conference (**ISWC**), virtual, 2020
- 6. 17th Extended Semantic Web Conference (ESWC), virtual, 2020
- 7. 18th International Semantic Web Conference (ISWC), Auckland, NZ, 2019
- 8. 16th Extended Semantic Web Conference (ESWC), Portoroz, Slovenia, 2019
- 9. 17th International Semantic Web Conference (ISWC), Monterey (CA), USA, 2018
- 10. 16th International Semantic Web Conference (ISWC), Vienna, Austria, 2017
- 11. 14th Extended Semantic Web Conference (ESWC), Portoroz, Slovenia, 2017
- 12. 15th International Semantic Web Conference (**ISWC**), Kobe, Japan, 2016
- 13. 13th Extended Semantic Web Conference (ESWC), Crete, Greece, 2016
- 14. 14th International Semantic Web Conference (ISWC), USA, 2015
- 15. 12th Extended Semantic Web Conference (ESWC), Crete, Greece, 2015
- 16. 13th International Semantic Web Conference (ISWC), Italy, 2014
- 17. 4th Joint International Semantic Technology Conference (JIST), Thailand, 2014.
- 18. 11th Extended Semantic Web Conference (ESWC), Crete, Greece, 2014;

Senior Program Committee Member

- 19. 12th International Semantic Web Conference (ISWC), Sydney, Australia, 2013
- 20. 10th Extended Semantic Web Conference (ESWC), Montpellier, France, 2013
- 21. 11th International Semantic Web Conference (ISWC), Boston, USA, 2012
- 22. 11th International Conference on Ontologies, Databases and Applications of Semantics (**ODBASE**), Rome, Italy, 2012
- 23. 8th Extended Semantic Web Conference (ESWC), Heraklion, Greece, 2012
- 24. 10th International Semantic Web Conference (ISWC), Bonn, Germany, 2011
- 25. 10th Intl. Conference on Ontologies, DataBases, and Applications of Semantics (**ODBASE**), Crete, Greece, 2011.
- 26. 4th Asian Semantic Web Conference (ASWC), Shanghai, China, 2009
- 27. 8th International Semantic Web Conference (ISWC), Washington DC, USA, 2009
- 28. 1st International Conference on Semantic Systems (i-Semantics), Graz, Austria, 2009
- 29. 7th International Semantic Web Conference (ISWC), Karlsruhe, Germany, 2008
- 30. 3rd Asian Semantic Web Conference (ASWC), Thailand, 2008.

- 31. 5th European Conference on Semantic Web Services (**ESWC**), Tenerife, Spain, 2008.
- 32. 4th European Conference on Semantic Web Services (**ESWC**), Innsbruck, Austria, 2007
- 33. 5th International Semantic Web Conference (**ISWC**), Athens, USA, 2006.
- 34. 3rd European Semantic Web Conference (**ESWC**), Budva, Montenegro, 2006.
- 35. 4th International. Semantic Web Conference (ISWC), Galway, Ireland, 2005.
- 36. 1st International IFIP Conference on Industrial Applications of the Semantic Web (IASW), Jyväskylä, Finland, August 2005.
- 37. 3rd International Semantic Web Conference (**ISWC**), Hiroshima, Japan, November 2004
- 38. 3rd Intl. Conference on Ontologies, DataBases, and Applications of Semantics (**ODBASE**), Cyprus, 2004.
- 39. 2nd Intl. Semantic Web Conference (ISWC), Sundial Resort, Sanibel Island, Florida, USA, 2003

Agent-Based Computing

- 40. 17th International Conference on Agents and Artificial Intelligence (ICAART), virtual, 2024
- 41. 21st International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), 2023
- 42. 16th International Conference on Agents and Artificial Intelligence (ICAART), virtual, 2023
- 43. 15th International Conference on Agents and Artificial Intelligence (**ICAART**), virtual, 2022
- 44. 20th International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), 2022
- 45. 14th International Conference on Agents and Artificial Intelligence (**ICAART**), virtual, 2021
- 46. 19th International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2021
- 47. 13th International Conference on Agents and Artificial Intelligence (ICAART), virtual, 2020
- 48. 18th International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2020
- 49. 12th International Conference on Agents and Artificial Intelligence (**ICAART**), Valetta, Malta, 2020
- 50. 4th IEEE International Conference on Agents (ICA), Jinan, China, 2019
- 51. 17th International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Avila, Spain, 2019
- 52. 11th International Conference on Agents and Artificial Intelligence (**ICAART**), Prague, Czech Republic, 2019
- 53. 9th International Conference on Industrial Applications of Holonic and Multi-Agent Systems (**HoloMAS**), Linz, Austria, 2019

- 54. 3rd IEEE International Conference on Agents (ICA), Singapore, 2018
- 55. 10th International Conference on Agents and Artificial Intelligence (ICAART), Funchal, Portugal, 2018
- 56. 16th International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Toledo, Spain, 2018
- 57. 8th International Conference on Industrial Applications of Holonic and Multi-Agent Systems (**HoloMAS**), Lyon, France, 2017
- 58. 2nd IEEE International Conference on Agents (ICA), Beijing, China, 2017
- 59. 15th German Conference on Multiagent System Technologies (**MATES**), Leipzig, Germany, 2017
- 60. 15th International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Porto, Portugal, 2017
- 61. 9th International Conference on Agents and Artificial Intelligence (**ICAART**), Porto, Portugal, 2017
- 62. 15th International Conference on Autonomous Agents and Multiagent Systems (AAMAS), Singapore, 2016; *Senior Program Committee Member*
- 63. 14th International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Sevilla, Spain, 2016
- 64. 1st IEEE International Conference on Agents (ICA), Matsue, Japan, 2016
- 65. 8th International Conference on Agents and Artificial Intelligence (ICAART), Rome, Italy, 2016
- 66. 2nd (13th) European Conference on Multi-Agent Systems (**EUMAS**), Athens, Greece, 2015
- 67. 15th IEEE/ACM International Conference on Intelligent Agent Technology (IAT), Singapore, 2015
- 68. 7th International Conference on Agents and Artificial Intelligence (**ICAART**), Lisbon, Portugal, 2015
- 69. 13th International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2015
- 70. 12th German Conference on Multiagen System Technologies (MATES), Stuttgart, Germany, 2014
- 71. 13th International Conference on Autonomous Agents and Multiagent Systems (AAMAS), Paris, France, 2014
- 72. 12th International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2014
- 73. 6th International Conference on Agents and Artificial Intelligence (**ICAART**), Angers, France, 2014
- 74. 14th IEEE/ACM International Conference on Intelligent Agent Technology (IAT), Warsaw, Poland, 2014
- 75. 11th German Conference on Multiagent System Technologies (MATES), Koblenz, Germany, 2013.
- 76. 13th IEEE/ACM International Conference on Intelligent Agent Technology (IAT), Atlanta, USA, 2013

- 77. 12th International Conference on Autonomous Agents and Multiagent Systems (AAMAS), Saint Paul, USA, 2013
- 78. 11th International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2013
- 79. 5th International Conference on Agents and Artificial Intelligence (ICAART), Barcelona, Spain, 2013
- 80. 12th IEEE/ACM International Conference on Intelligent Agent Technology (IAT), Macau, China, 2012
- 81. 10th German Conference on Multiagent System Technologies (MATES), Trier, Germany, 2012
- 82. 11th International Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), Valencia, Spain, 2012
- 83. 10th International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2012
- 84. 4th International Conference on Agents and Artificial Intelligence (ICAART), Vilamoura, Portugal, 2012
- 85. 9th German Conference on Multiagen System Technologies (**MATES**), Berlin, Germany, September, 2011
- 86. 9th International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2011
- 87. 10th International Conference on Autonomous Agents and Multiagent Systems (AAMAS), Taipeh, Taiwan, 2010
- 88. 3rd International Conference on Agents and Artificial Intelligence (ICAART), Rome, Italy, 2011
- 89. 2nd International Conference on Agents and Artificial Intelligence (**ICAART**), Valencia, Spain, 2010
- 90. 9th International Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), Toronto, Canada, 2010
- 91. 8th International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2010
- 92. 7th International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain,. 2009
- 93. 8th International Conference on Autonomous Agents and Multi-Agent Systems (**AAMAS**), Budapest, Hungary, 2009
- 94. 7th International Conference on Autonomous Agents and Multi-Agent Systems (**AAMAS**), Estoril, Portugal, 2008
- 95. 8th International Conference on Self-Organization and Autonomic Systems in Computing and Communications (**SOAS**), Leipzig, Germany, 2007.
- 96. 6th International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS), Hawaii, USA, 2007. *Senior Program Committee Member*.
- 97. 7th Intl Conference on Self-Organization and Autonomic Systems in Computing and Communications (**SOAS**), Erfurt, Germany, 2006.
- 98. 5th Intl. Conference on Autonomous Agents and Multi-Agent Systems (**AAMAS**), Hakodate, Japan, May 2006.

- 99. 4th German Conference on Multiagen System Technologies (**MATES**), Erfurt, Germany, September, 2006
- 100. 1st Intl Conference on Self-Organization and Adaptation of Multi-agent and Grid Systems (**SOAS**), Glasgow, UK, December 2005
- 101. 4th Intl. Conference on Autonomous Agents and Multi-Agent Systems (**AAMAS**), Utrecht, The Netherlands, July 2005
- 102. 4th Intl. Central and Eastern European Conference on Multi-Agent Systems (**CEEMAS**), Budapest, Hungary, September 2005
- 103. 2nd Intl. Conference on Industrial applications of Holonic and Multi-Agent Systems (**HoloMAS**), Copenhagen, Denmark, 2005
- 104. 3rd Intl. Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), New York, USA, 2004.
- 105. 3rd Intl. Central and Eastern European Conference on Multi-Agent Systems (**CEEMAS**), Prague, Czech Republic, 2003
- 106. 1st Intl. Conference on Industrial Applications of Holonic and Multi-agent Systems (**HoloMAS**), Prague, Czech Republic, 2003
- 107. 1st Intl. Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS), Bologna, Italy, 2002
- 108. 5th Intl. Conference on Autonomous Agents (**Agents**), Montreal, Canada, 2001; *Senior Program Committee Member*.
- 109. 2nd Asia-Pacific Conference on Intelligent Agent Technology (IAT), Japan, 2001.
- 110. 6th Intl. Conference on Practical Application of Intelligent Agents and Multi-Agent Technology (**PAAM**), Manchester, UK, 2001.
- 111. 4th Intl. Conference on Multiagent Systems (**ICMAS**), Boston, USA, 2000.
- 112. 3rd Intl. Conference on Autonomous Agents (**Agents**), Seattle, USA, 1999.
- 113. 4th Intl. Conference on Practical Application of Intelligent Agents and Multi-Agent Technology (**PAAM**), London, UK, 1999
- 114. 2nd Intl. Conference on Autonomous Agents (**Agents**), Minneapolis, USA, 1998.

Artificial Intelligence

- 115. 46th German Conference on Artificial Intelligence (**KI**), 2023
- 116. 45th German Conference on Artificial Intelligence (**KI**), 2022
- 117. 35th AAAI Conference on Artificial Intelligence (**AAAI**), virtual, 2021
- 118. 30th International Joint Conference on Artificial Intelligence (IJCAI), Montreal, CA, 2021
- 119. 44th German Conference on Artificial Intelligence (**KI**), virtual, 2021
- 120. 29th International Joint Conference on Artificial Intelligence (IJCAI), virtual, 2020
- 121. 34th AAAI Conference on Artificial Intelligence (**AAAI**), New York, USA, 2020
- 122. 43rd German Conference on Artificial Intelligence (KI), virtual, 2020
- 123. 4th International Joint Conference on Rules and Reasoning (**RuleML+RR**), virtual, 2020
- 124. 28th International Joint Conference on Artificial Intelligence (IJCAI), Macao, China, 2019

- 125. 3rd International Joint Conference on Rules and Reasoning (**RuleML+RR**), Bolzano, Italy, 2019
- 126. 42nd German Conference on Artificial Intelligence (KI), Kassel, Germany, 2019
- 127. 2nd International Joint Conference on Rules and Reasoning (**RuleML+RR**), Luxembourg, 2018
- 128. 41st German Conference on Artificial Intelligence (KI), Berlin, Germany, 2018
- 129. 27th International Joint Conference on Artificial Intelligence and the 23rd European Conference on Artificial Intelligence (IJCAI-ECAI), Stockholm, Sweden, 2018
- 130. 29th AAAI Conference on Artificial Intelligence (**AAAI**), Austin (TX), USA, 2015
- 131. 6th IASTED International Conference on Computational Intelligence (CI), Innsbruck, Austria, 2015
- 132. 13th International IASTED Conference on Artificial Intelligence and Applications (AIA), Innsbruck, Austria, 2014
- 133. International Joint Conference on Artificial Intelligence (IJCAI), Barcelona, Spain, 2011. *Senior Program Committee Member*.
- 134. 19th European Conference on Artificial Intelligence (**ECAI**), Lisbon, Portugal, 2010
- 135. 6th International Conference on Prestigious Applications of Intelligent Systems (**PAIS**), Lisbon, Portugal, 2010
- 136. 8th International IASTED Conference on Artificial Intelligence and Applications (AIA), Innsbruck, Austria, 2008
- 137. 30th German Conference on Artificial Intelligence (**KI**), 10 13 September, Osnabrück, Germany, 2007
- 138. 7th International IASTED Conference on Artificial Intelligence and Applications (AIA), Innsbruck, Austria, 2007
- 139. 6th International IASTED Conference on Artificial Intelligence and Applications (AIA), 13 16 February, Innsbruck, Austria, 2006
- 140. 22nd International IASTED Conference on Artificial Intelligence and Applications (AIA), 16 18 February, Innsbruck, Austria, 2004
- 141. 3rd Intl. Conference on Knowledge Systems for Coalition Operations (**KSCO**), Pensacola, Oct 26-28, 2004, USA, 2004
- 142. 15th European Conference on Artificial Intelligence (**ECAI**), Lyon, France, 2002

Information Systems, Web Technologies

- 143. 19th International Conference on Web Information Systems and Technologies (**WebIST**), 2023
- 144. 29th International Conference on Cooperative Information Systems (**CoopIS**), 2023
- 145. 18th International Conference on Web Information Systems and Technologies (WebIST), 2022
- 146. 28th International Conference on Cooperative Information Systems (**CoopIS**), 2022

- 147. 17th International Conference on Web Information Systems and Technologies (**WebIST**), virtual, 2021
- 148. 26th International Conference on Cooperative Information Systems (**CoopIS**), Rhodes, Greece, 2020
- 149. 16th International Conference on Web Information Systems and Technologies (**WebIST**), virtual, 2020
- 150. 12th International Conference on Computational Collective Intelligence (**ICCCI**), Da Nang, Vietnam, 2020
- 151. 25th International Symposium on Methodologies for Intelligent Systems (**ISMIS**), virtual. 2020
- 152. 25th International Conference on Cooperative Information Systems (**CoopIS**), Rhodes, Greece, 2019
- 153. 15th International Conference on Web Information Systems and Technologies (**WebIST**), Vienna, Austria, 2019
- 154. 15th International Conference on Beyond Databse Architectures and Structures (**BDAS**), Poland, 2019
- 155. International World Wide Web Conference (Web), Lyon, France, 2018
- 156. 24th International Conference on Cooperative Information Systems (**CoopIS**), Valetta, Malta, 2018
- 157. 14th International Conference on Web Information Systems and Technologies (**WebIST**), Vienna, Austria, 2018
- 23rd International Conference on Cooperative Information Systems (CoopIS), Rhodes, Greece, 2017
- 159. 23rd International Symposium on Methodologies for Intelligent Systems (**ISMIS**), Warsaw, Poland, 2017
- 160. 13th International Conference on Web Information Systems and Technologies (**WebIST**), Porto, Portugal, 2017
- 161. 13th International Conference on Beyond Databse Architectures and Structures (BDAS), Poland, 2017
- 162. 22nd International Conference on Cooperative Information Systems (**CoopIS**), Rhodes, Greece, 2016
- 163. 12th International Conference on Web Information Systems and Technologies (**WebIST**), Rome, Italy 2016
- 164. 21st International Conference on Cooperative Information Systems (**CoopIS**), Rhodes, Greece, 2015
- 165. 11th International Conference on Web Information Systems and Technologies (**WebIST**), Lisbon, Portugal, 2015
- 166. 6th International Conference on Emerging Ubiquitous Systems and Pervasive Networks (**EUSPN**), Berlin, Germany, 2015
- 167. 8th International Conference on Mobile and Internet Services in Ubiquitous Computing (**IMIS**), Birmingham, UK, 2014
- 168. 10th International Conference on Web Information Systems and Technologies (WebIST), Barcelona, Spain, 2014

- 169. 10th IEEE International Conference on e-Business Engineering (**ICEB**), Coventry, UK, 2013. Agents for E-Business Track.
- 170. 10th International Conference on Mobile Web Information Systems (**MobiWIS**), Cyprus, 2013
- 171. 9th International Conference on Web Information Systems and Technologies (WebIST), Aachen, Germany, 2013
- 172. 8th International Conference on Web Information Systems and Technologies (**WebIST**), Porto, Portugal, 2012
- 173. 1st International Conference on Ambient Computing, Applications, Services and Technologies (**AMBIENT**), Bareclona, 2011
- 174. 25th International IEEE Conference on Advanced Information Networking and Applications (AINA), Singapore, 2011
- 175. 18th International World Wide Web Conference (**WWW**), Madrid, Spain, 2009
- 176. 23rd IEEE International Conference on Advance Information Networking and Application (AINA), Bradford, UK, 2009
- 177. 10th International Conference on Electronic Commerce (ICEC), Innsbruck, Austria, 2008
- 178. German Conference "Anwendungskonzepte und Vorgehensweise für dezentrale Informationssysteme" as part of the German multi-conference on business informatics **MKWI**, Munich, Germany, 2008
- 179. IEEE International Conference on Adaptive Business Systems (ICABS), China, 2007
- 180. 8th International ACM Conference on Electronic Commerce (**EC**), San Diego, USA, 2007
- 181. International IEEE Conference on IP and Web Applications (ICIW), Guadeloupe, 2006
- 182. 3rd International Conference on Service-Oriented Computing (ICSOC), Amsterdam, The Netherlands, December 2005
- 183. 1st Intl. Conference on Mobile and Ubiquitous Systems: Networking and Services (**Mobiquitous**), August 22-25, 2004, Boston, Massachusetts, USA
- 184. 12th Intl. Conference on the World Wide Web (**WWW**), Budapest, Hungary, May 2003
- 185. 9th Intl. Conference on Database Systems for Advanced Applications (**DASFAA**), Kyoto, Japan, 2003.
- 186. 3rd Intl. Conference on Web Information Systems Engineering (**WISE**), Singapore, 2002
- 187. 11th Int. Conference on the Worldwide Web (**WWW**), Hawai, USA, 2002
- 188. 2nd Intl. Conference on Electronic Commerce and Web (**EC&Web**), London, UK, 2000.
- 189. Intl. Conference on Electronic Commerce & Web (EC&Web), Munich, Germany, 2001.
- 190. 2nd Intl. Conference on Web Information Systems Engineering (WISE), Kyoto, Japan, 2001

- 191. Intl. Conference on Advances in Database and Information Systems (ADBIS), Vilnius, Lithuania, 2001.
- 192. 4th IFCIS Conference on Cooperative Information Systems (**CoopIS**), Edinburgh, Scotland, 1999.
- 193. 5th Intl. Conference on Information Systems, Analysis and Synthesis (**ISAS**), Orlando, USA, 1999
- 194. 3rd IFCIS Conference on Cooperative Information Systems (**CoopIS**), New York, USA, 1998
- 195. Intl. Conference ETCE-96 Energy Week, Houston, TX/USA, 1996.

Other Topics

- 196. 7th International Conference on Agreement Technologies (AT), Thessaloniki, Greece, 2020
- 197. 5th International Conference on Agreement Technologies (**AT**), Bergen, Norway, 2018
- 198. 4th International Conference on Behavioral, Economic and Socio-Cultural Computing (**BESC**), Krakow, Poland, 2017
- 199. 5th International Conference on Agreement Technologies (AT), Evry, France, 2017
- 200. International Conference on Behavioral, Economic and Socio-Cultural Computing (BESC), Durham, USA, 2016
- 201. 6th International Conference on Emerging Ubiquitous Systems and Pervasive Networks (**EUSPN**), Berlin, Germany, 2015
- 202. International Conference on Behavioral, Economic and Socio-Cultural Computing (BESC), Nanjing, China, 2015
- 203. 3rd International Conference on Agreement Technologies (AT), Athens, Greece, 2015
- 204. International Congress on Smart Energy Research in Europe (SE), Essen, Germany, 2015
- 205. 36th Annual Conference of the European Association for Computer Graphics (**EuroGraphics**) STAR, 2015
- 206. Smart Energy Research Conference (**SE**) @ e-World energy & water Congress, Essen, Germany, 2015
- 207. Smart Energy Research Conference (SE) @ e-World energy & water Congress, Essen, Germany, 2014
- 208. 9th ACM Symposium on Applied Computing (**SAC**), Technical Track on Coordination Languages, Models, and Applications, Seoul, Corea, 2007
- 209. 34th Intl. Conference on System Sciences (**HICSS**), Maui, 2001.
- 210. 4th Intl. Conference of Systemics, Cybernetics and Informatics (**SCI**), USA, 2000.

10.2 Workshops

Semantic Technologies

- 211. 7th International Workshop on Linked Web Data Management (**LWDM**), Venice, Italy, 2017
- 212. 6th International Workshop on Linked Web Data Management (**LWDM**), Bordeaux, France, 2016
- 213. 5th International Workshop on Linked Web Data Management (**LWDM**), Brussels, Belgium, 2015
- 214. 2nd International Workshop on Social News on the Web (**SNOW**) @ WWW, Seoul, Korea, 2014
- 215. 4th International Workshop on Linked Web Data Management (**LWDM**) @ EDBT, Athens, Greece, 2014
- 216. 6th International Workshop on Semantic Web Information Management (**SWIM**), USA, 2014
- 217. 3rd International Workshop on Linked Web Data Management (**LWDM**) @ 15th Extended Database Technology Conference (EDBT), Genoa, Italy, 2013
- 218.3rd Workshop on the use of Semantic Web Technology for Mobile and Ubiquitous Applications (**SWUMA**), @ ISWC, Boston, USA, 2012.
- 219. 2nd International Workshop on Linked Web Data Management (**LWDM**) @ 15th Extended Database Technology Conference (EDBT), Berlin, Germany, 2012
- 220. International Workshop on Evaluation of Semantic Technologies (IWEST) @ ISWC, Shanghai, China, 2010
- 221. 1st International Workshop on Linked Web Data Management (**LWDM**) @ 14th Extended Database Technology Conference (EDBT), Uppsala, Sweden, 2011
- 222. 2nd Al Mashup Challenge (**Al-mashup**) @ ESWC, Heraklion, Greece, 2010.
- 223. 3rd International Workshops on Service Matchmaking and Resource Retrieval in the Semantic Web (**SMR2**), Washington DC, USA, 2009
- 224. 2nd International Workshops on Service Matchmaking and Resource Retrieval in the Semantic Web (**SMR2**), Karslruhe, Germany, 2008
- 225. Intl. Symposium on Rule Interchange and Applications (**RuleML**), Orlando, USA, 2007.
- 226. 1st Intl. IEEE/ACM Workshop on Semantic Matchmaking and Resource Retrieval (SMR), at VLDB Conference, Seoul, Korea, September 2006
- 227. 2nd Intl. Workshop on the Use of Semantic Web Technologies for Ubiquituous and Mobile Applications (**SWUMA**), Trento, Italy, 2006
- 228. 5th Intl. DEXA Workshop on Web Semantics (WebS), Krakow, Poland, 2006.
- 229. 4th Intl. Workshop on Web Semantics (**WebS**) at 16th Intl. Conference on Database and Expert Systems (DEXA), Copenhagen, Denmark, August 2005.
- 230. AAAI Spring Symposium on Semantic Web Services, Stanford, USA, March 2004.
- 231. 1st Intl. Workshop on Semantic Web Technology for Mobile and Ubiquitous Applications @ ISWC, Hiroshima, Japan, 2004.

232. Intl. Workshop "XML-Technologien für das Semantic Web" (XSW), Berlin, Germany, October 2003

Agent-Based Computing and AI

- 233. International Workshop on Multi-agent based Applications for Energy Markets, Smart Grids and Sustainable Energy Systems (MASGES) @PAAMS conference, 2021
- 234. International Workshop on Multi-agent based Applications for Energy Markets, Smart Grids and Sustainable Energy Systems (MASGES) @PAAMS conference, 2020
- 235. International Workshop on Hypermedia Agents (**HyperAgents**) @Web Conference, San Francisco, USA, 2019
- 236. 7th International Workshop on Smart Energy Networks & Multi Agent Systems (**SEN-MAS**), Leipzig, Germany, 2019.
- 237. International Workshop on Multi-agent based Applications for Energy Markets, Smart Grids and Sustainable Energy Systems (MASGES) @PAAMS conference, 2019
- 238. International Workshop on Multi-agent based Applications for Smart Grids and Sustainable Energy Systems (MASGES) @PAAMS conference, 2018
- 239. 1st Workshop on Sustainable Energy Systems, Smart Infrastructures, and Smart Environments (SESSISE), Posen, Poland, 2017
- 240. International Workshop on Multi-agent based Applications for Smart Grids and Sustainable Energy Systems (MASGES) @PAAMS conference, 2017
- 241. 5th International Workshop on Artificial Intelligence Techniques for Power Systems and Energy Markets (IATEM), Porto, Portugal, 2016
- 242. 4th International Workshop on Artificial Intelligence Techniques for Power Systems and Energy Markets (IATEM), Valencia, Spain, 2015
- 243. International Workshop on Multi-agent based Applications for Smart Grids and Sustainable Energy Systems (MASGES) @PAAMS conference, Valencia, Spain, 2015
- 244. 4th International Workshop on Smart Energy Networks & Multi Agent Systems (**SEN-MAS**), Lodz, Poland, 2015.
- 245. 3rd International Workshop on Smart Energy Networks & Multi Agent Systems (**SEN-MAS**), Warszaw, Poland, 2014.
- 246. International Workshop on Multi-agent based Applications for Smart Grids and Sustainable Energy Systems (MASGES) @PAAMS conference, Valencia, Spain, 2014
- 247. International Workshop on Information Sharing in Large-Scale Multi-Agent Systems (ISLMAS) @ AAMAS conference, 2013
- 248. 2nd International Workshop on Smart Energy Networks & Multi Agent Systems (**SEN-MAS**), Koblenz, Germany, 2013
- 249. International Workshop on Multi-agent based Applications for Sustainable Energy Systems (MASSES) @PAAMS conference, Valencia, Spain, 2013
- 250. 2nd International Workshop on Intelligent Agent Technology, Power Systems and Energy Markets (IATEM), @24th DEXA conference, Prague, Czech Republic, 2013.
- 251. 1st International Workshop on Intelligent Agent Technology, Power Systems and Energy Markets (IATEM), @23rd DEXA conference, Vienna, Austria, 2012.

- 252. 1st International Workshop on Smart Energy Networks & Multi Agent Systems (**SEN-MAS**), Wroclaw, Poland, 2012.
- 253. 4th International Workshop on Agents and Data Mining Interaction (**ADMI**), Toronto, Canada, 2010
- 254. 3rd International Workshop on Agents and Data Mining Interaction (**ADMI**), Budapest, Hungary, 2009
- 255. 10th International Workshop on Engineering Societies in the Agents' World (**ESAW**), Utrecht, The Netherlands, 2009
- 256. 2nd International Workshop on Autonomous Intelligent Systems: Agents and Data Mining (AIS-ADM), St Petersburg, Russia, 2007
- 257. 4th European Workshop on Multiagent Systems (EUMAS), Lisbon, Portugal, 2006
- 258. 1st International Workshop on Privacy and Security in Agent-Based Collaborative Environments (**PSACE**) at AAMAS 2006 Conference, Japan, 2006
- 259. 1st International Workshop on Autonomous Intelligent Systems: Agents and Data Mining (AIS-ADM), St Petersburg, Russia, 2005
- 260. 3rd European Workshop on Multiagent Systems (EUMAS), Brussels, 2005
- 261. 4th International Workshop on Agents and P2P Computing (**AP2P**) @ AAMAS Conference, Utrecht, The Netherlands, 2005
- 262. 1st AAAI Fall Symposium on Agents and the Semantic Web (**ASW**), Arlington, USA, November 2005.
- 263. 5th International Workshop on Agent-Based Simulation (ABS), Portugal, 2004
- 264. 4th International Symposium "From Agent Tehory to Agent Implementation" (AT2AI), @ 17th European Cybernetics and Systems Research (EMCSR-2004), Vienna, 2004
- 265. 3rd International Workshop on Agents and P2P Computing (**AP2P**) @ AAMAS Conference, New York, USA, 2004
- 266. 1st European Workshop on Multiagent Systems (EUMAS), Oxford, UK, 2003
- 267. 1st International Workshop on Autonomy (Autonomy) @AAMAS Conference 2003.
- 268. 3rd International IEEE/ACM Workshop on Agent-based cluster and grid computing (**AgentGrid**), Tokyo, Japan, 2003.
- 269. 1st International Workshop on Teamwork and Coalition Formation @ AAMAS Conference, Bologna, Italy, 2002.
- 270. 2nd International Workshop on Ontologies in Agent Systems (**OAS**) @ AAMAS Conference, Bologna, Italy, 2002.
- 271. 2nd International Workshop on Challenges in Open Agent Environments, @ AAMAS Conference 2002, Bologna, Italy, 2002
- 272. 10th International Workshop on Multi-Agent Systems (**MAAMAW**), Annecy, France, 2001.
- 273. 2nd International Workshop on Infrastructure for Scalable Multi-Agent Systems @ AAMAS Conference, Montreal, Canada, 2001.
- 274. International Workshop on Ontologies in Agent Systems @ AAMAS Conference, Montreal, Canada, 2001
- 275. International Workshop on Internet Bots: Systems and Applications (INBOSA) @ DEXA Conference, Munich, Germany, 2001.

- 276. International Workshop on Engineering Societies in the Agents' World (**ESAW**), Prague, 2001
- 277. International ICSC Symposium on Multi-Agents and Mobile Agents in Virtual Organizations and E-Commerce (MAMA), Australia, 2000.
- 278. International Workshop on Engineering Societies in the Agents' World (**ESAW**) @ ECAI Conference, Berlin, Germany, 2000.
- 279. International Workshop on Agent-Based Information Systems (ABIS) @ DEXA Conference, Greenwich, UK, 2000.
- 280. 2nd German Joint Meeting on DAI, Databases and Information Retrieval (**ADI**), Rostock, Germany, 1999.
- 281. 1st International Workshop on Agent Communication Languages (**ACL**) @ IJCAI Conference, Stockholm, Sweden, 1999.
- 282. 1st International Symposium 'From Agent Theory to Agent Implementation' (AT2AI) @ European Conference on Cybernetics and Systems Research, Vienna, 1998.
- 283. Workshop on Intelligent Agents in Information and Process Management @ 22nd German Conference on Artificial Intelligence (**KI**) of German Computer Society, Bremen, 1998.

Web Technologies, Service-Oriented Computing

- 284. International Workshop on Quality of Service in Smart Cities (QoS-SC), Pittsburgh, USA, 2016
- 285. AAAI Spring Symposium on Intelligent Web Services Meet Social Computing (**AAAI SS**), Stanford, California, 2012
- 286. International Workshop on Challenges in Mobile Service Computing (CMSC) @ ECOWS Conference, Lugano, Switzerland, 2011
- 287. 9th International Workshop on Service-Oriented Computing: Agents, Semantics and Engineering (SOCASE) @ FedCSIS Conference, Szcecin/Stettin, Poland, 2011
- 288. 8th International Workshop on Service-Oriented Computing: Agents, Semantics and Engineering (SOCASE) @ AAMAS, Toronto, Canada, 2010.
- 289. International IEEE Symposium on Applications and the Internet (SAINT), USA, 2001.
- 290. International Workshop on E-Business & Intelligent Web @ IJCAI 2001, Seattle, USA, 2001

Information Systems, Data Mining, P2P and Mobile Computing

- 291. International Workshop on Modelle in der KI (MOD), Vienna, Austria, 2020
- 292. 3rd International Workshop on Mining Ubiquitous and Social Environments (**MUSE**), @16th ECML conference, Bristol, UK, 2012.
- 293. 5th Intl Workshop on Databases, Information Systems and P2P Computing (DBISP2P) @ VLDB Conference, Vienna, Austria, 2007
- 294. 4th Intl Workshop on Databases, Information Systems and P2P Computing (**DBISP2P**) @ VLDB Conference, Seoul, South Corea, 2006

- 295. 3rd Intl Workshop on Databases, Information Systems and P2P Computing (**DBISP2P**) @ VLDB conference, Trondheim, Norway, 2005
- 296. 8th International Workshop on High Performance and Distributed Data Mining (**HPDM**) @ 5th Intl. SIAM Conference on Data Mining, Newport CA, USA, 2005.
- 297. 1st International Workshop on Peer-To-Peer Knowledge Management (**P2PKM**) @ 1st Int. Conference on Mobiquitous Computing, 2004
- 298. 1st International Workshop on Peer-To-Peer Computing and Databases (**P2P&DB**) @ EDBT Conference, Heraklion, Greece, 2004.
- 299. International Workshop on Hybrid Intelligent Systems for Data Mining @ IEEE International Conference on Data Mining (ICDM), San Jose, USA, 2001.
- 300. International Workshop on Intelligent Information Integration (I3) @ IJCAI Conference, Stockholm, Sweden, 1999.

Others

- 301. 1st Intl Workshop on Theory and Practice of Open Computational Systems (**TAPOCS**), 2003
- 302. 12th International IEEE Workshop on Enabling Technologies: Infrastructure for Collaborative Enterprises (**WETICE**), Linz, Austria, 2003
- 303. 7th IEEE Intl Workshop on Enabling Technologies: Infrastructure for Collaborative Enterprises (**WETICE**), Stanford, USA, 1998
- 304. **ACAI** Workshop on Machine Learning and Applications, Greece, 1999.

Further Journal Reviewing Activities

I have been also invited to serve as a reviewer for the following scientific journals:

- IEEE Transactions of Services Computing
- ACM Transactions of Internet Technology
- Int. Journal of Software Tools for Technology Transfer, Springer
- Int. Journal of Autonomous Agents and Multi-Agent Systems, Springer
- Int. Journal of Applied Artificial Intelligence, Taylor&Francis
- Int. Journal of Intelligent Information Systems, Springer
- Int. Journal of Parallel and Distributed Computing, Elsevier
- Int. Journal of Web Engineering, Rinton
- IEEE Journal of Intelligent Systems
- IEEE Journal of Internet Computing
- IEEE Transactions of Data and Knowledge Engineering
- Semantic Web Journal (online), IOS

11. Publications

My co-/authored publications (231) are listed in inverted chronological order and sorted in the categories of books (30), special journal issues (3), journal papers (35), book chapters (18), conference (105) and workshop papers (36), and technical reports (4).

11.1 Books

Anthologies

- [A04-05] Calisti, M.; Unland, R.; Klusch, M. (2005) Eds.: Software Agent-based Applications, Plarforms and Development Kits. Whitestein Technologies Series, Birkhäuser, ISBN 3-7643-7347-4.
- [A03-03] Klusch, M., Bergamaschi, S., Edwards, P., Petta, P. (2003) Eds.: Intelligent Information Agents: The AgentLink Perspective. LNAI series vol. 2586, Springer.
- [A02-01] Omicini, A.; Zambonelli, F.; Klusch, M.; Tolksdorf, R. (2001) Eds.; Coordination of Internet Agents: Models, Technologies, and Applications. Springer, ISBN 3-540-41613-7.
- [A01-99] Klusch, M. (1999) Ed.: Intelligent Information Agents Agent-Based Information Discovery and Management on the Internet. Springer, ISBN 3-540-65112-8.

Proceedings

- [P23-16] Klusch, M.; Unland, R..; Shehory, O.; Pokahr, A.; Ahrndt, S. (2016) Eds.: Multiagent System Technologies. Proceedings of the 14th German Conference MATES, Klagenfurt, Austria, Springer, LNAI 9872. [B]
- [P22-13] Klusch, M.; Thimm, I.; Paprzycki, M. (2013) Eds.: Multiagent System Technologies. Proceedings of the 11th German Conference MATES, Koblenz, Germany, Springer, LNAI 8076. [B]
- [P21-10] Bernstein, A.; Grace, P.; Klusch, M.; Paolucci, M. (2010) Eds.: Proceedings of 4th International Workshop on Service Matchmaking and Resource Retrieval in the Semantic Web, at ISWC 2010, Shanghai, China, CEUR, 2010.
- [P20-09] Bruza, P.; Rijsbergen, K.v.; Sofge, D.; Lawless, B.; Klusch, M. (2009) Eds.: Quantum Interaction. Third International Symposium QI 2009, Saarbrücken, Germany, March 25 27, 2009, LNCS 5494, Springer.

- [P19-08] Klusch, M.; Polleres, A.; Pechoucek, M. (2008) Eds.: Cooperative Information Agents XII. Proceedings of the Eleventh International Workshop CIA 2008, Prague, Czech Republic, September 10 12, 2008, LNAI 5180, Springer.
- [P18-08] Kowalczyk, R.; Huhns, M.; Klusch, M.; Maamar, Z.; Vo, Q.B. (2008) Eds.: Proceedings of the International Workshop SOCASE on Service-Oriented Computing: Agents, Semantics, and Engineering. Estoril, Portugal, 2008.
- [P17-07] Petta, P., Müller, J., Klusch, M., Georgeff, M. (2007) Eds.: Multiagent System Technologies. Proceedings of the 5th German Conference MATES, Leipzig, Germany, LNAI 4687, Springer. [B]
- [P16-07] Klusch, M., Hindriks, K., Sterling, L., Papazoglou, M. (2007) Eds.: Cooperative Information Agents XI. Proceedings of the Eleventh International Workshop CIA 2007, Delft, The Netherlands, September 19 – 21, 2007, LNAI 4676, Springer.
- [P15-06] Klusch, M.; Rovatsos, M.; Payne, T. (2006) Eds.: Cooperative Information Agents X. Proceedings of the Tenth International Workshop CIA 2006, Edinburgh, UK, September 11 13, 2006, LNAI series, 4149, Springer.
- [P14-05] Eymann, T.; Klügl, F.; Lamersdorf, W.; Klusch, M.; Huhns, M. (2005) Eds.: Multiagent System Technologies III. Proceedings of the 3rd German Conference MATES 2005, September 2005, Koblenz, LNAI series, 3550, Springer. [B]
- [P13-04] Klusch, M.; Ossowski, S.; Kashyap, V.; Unland, R. (2004) Eds.: Cooperative Information Agents VIII. Proceedings of Eighth International Workshop CIA-2004 on Cooperative Information Agents, Erfurt, September 27 - 29, 2004, LNAI series, 3919, Springer.
- [P12-03] Schillo, M., Klusch, M.; Müller, J., Tianfield, H. (2003) Eds.: Multiagent System Technologies. Proceedings of First German Conference (MATES 2003), Erfurt, Germany, LNAI 2831, Springer. [B]
- [P11-03] Liu, J.; Klusch, M.; Zhong, N.; Cercone N. (2003) Eds.: Proceedings of the IEEE International Conference on Web Intelligence WI-2003, IEEE Press.
- [P10-03] Liu J.; Faltings, B.; Klusch, M.; Liu, C. (2003) Eds.: Proceedings of the IEEE / WIC International Conference on Intelligent Agent Technology IAT-2003, IEEE Press.

- [P09-03] Klusch, M., Omicini, A., Ossowski, S., Laamanen, H. (2003) Eds.: Cooperative Information Agents VII. Proceedings of Seventh International Workshop CIA-2003 on Cooperative Information Agents, Helsinki, Finland, August 27 29, 2003. LNAI series, 2782, Springer.
- [P08-02] Klusch, M., Ossowski, S., Shehory, O. (2002) Eds.: Cooperative Information Agents VI. Proceedings of Sixth International Workshop CIA-2002 on Cooperative Information Agents, Madrid, September 18 20, 2002, LNAI series, 2446, Springer.
- [P07-01] Klusch, M. Zambonelli, F. (2001) Eds.: Cooperative Information Agents V, Proceedings of Fifth International Workshop CIA-2001, Modena, Italy, September 6 8, 2001, LNAI series, 2182, Springer.
- [P06-00] Bouzeghoub, M.; Klusch, M.; Nutt, W.; Sattler, U. (2000) Eds.: Proceedings of the 7th International Workshop on Knowledge Representation meets Databases (KRDB 2000).
- [P05-00] Klusch, M.; Kerschberg, L. (2000) Eds.: Cooperative Information Agents IV. Proceedings of Fourth International Workshop CIA-2000 on Cooperative Information Agents, Boston, USA, July 7 9, 2000, LNAI series, 1860, Springer.
- [P04-99] Klusch, M.; Shehory, O.; Weiß, G. (1999) Eds.: Cooperative Information Agents III. Proceedings of Third International Workshop CIA-99 on Cooperative Information Agents, Uppsala, Sweden, July 31 August 2, 1999, LNAI series, 1652, Springer.
- [P03-98] Holsten, A.; Joeris, G.; Klauck, C.; Klusch, M.; Mueller, HJ.; Mueller, JP. (1998) eds.: Intelligent Agents in Information and Process Management. Proceedings of Workshop at the 22nd German Annual Conference on Artificial Intelligence (KI98), Bremen; TZI-Bericht Nr. 9, Universität Bremen, Germany
- [P02-98] Klusch, M.; Weiß, G. (1998) Eds.: Cooperative Information Agents II -Learning, Mobility, and Electronic Commerce for Information Discovery in the Internet. Proceedings of Second International Workshop CIA-98 on Cooperative Information Agents, Paris, July 4 - 7, 1998, LNAI series, 1435, Springer.
- [P01-97] Kandzia, P.; Klusch, M. (1997) Eds.: Cooperative Information Agents. Proceedings of First International Workshop CIA-97 on Cooperative Information Agents, Kiel, Germany, February 26 18, 1997, Lecture Notes in Artificial Intelligence, Vol. 1202, Springer.

Theses

- [T03-08] Klusch, M. (2008): On Agent-Based Semantic Service Coordination. Habilitation Thesis, University of the Saarland, Saarbruecken, Germany, 466 pages. http://www-ags.dfki.uni-sb.de/~klusch/habilitation-thesis-klusch-2008-woDOC.pdf
- [T02-98] Klusch, M. (1998): Kooperative Informationsagenten im Internet. PhD Thesis (Dissertation). Schriftenreihe Forschungsergebnisse zur Informatik, Band 36, Kovac Verlag, Hamburg, ISBN 3-86064-746-6, 200 pages.
- [T01-91] Klusch, M. (1991): Entwicklung und Implementierung eines hybrid-neuralen Systems zur Klassifikation von Sternen. Diploma Thesis, Christian-Albrecht-Universität zu Kiel, Institut für Informatik und Praktische Mathematik, Kiel, Germany.

11.2 Special Issues of Journals

- [S03-05] Klusch, M.; Ossowski, S.; Unland, R. (Guest editors), Engineering Artifical Intelligence Applications, Special Issue on Best Papers of CIA 2004, Elsevier Science, vol. 18 (7), 2005
- [S02-02] Klusch, M.; Zambonelli, F. (Guest editors), *Cooperative Information Systems*, Special Issue on Selected Best Papers of CIA 2002, World Scientific, 11 (3), 2002.
- [S01-01] Klusch, M. (Guest editor), *Cooperative Information Systems*, Double Special Issue on Intelligent Information Agents: Theory and Applications, 10 (1&2), World Scientific, March 2001.

11.3 Journal Papers

- [J35-23] Macaluso, A.; Klusch, M.; Lodi, S.; Sartori, S. (2023): MAQA: A Quantum Framework for Supervised Learning. *Quantum Information Processing*, 22, Springer
- [J34-21] Poibrenski, A.; Klusch, M.; Vozniak, I.; Mueller, C. (2020): Multimodal Multi-Pedestrian Path Prediction for Autonomous Cars. *Applied Computing Review*, 20(4), ACM
- [J33-19] Dahmen, T.; Trampert, P.; Boughorbel, F.; Sprenger, J.; Klusch, M.; Fischer, K.; Kübel, C.; Slusallek, P. (2019): Digital Reality: A Model-Based Approach to Supervised Learning from Synthetic Data. *Al Perspectives*, Springer

- [J32-18] Mazzola, L.; Kapahnke, P.; Klusch, M. (2018): Smart Process Optimization and Adaptive Execution with Semantic Services in Cloud Manufacturing. *Information*, 9(11), MDPI.
- [J31-18] Mazzola, L.; Kapahnke, P.; Klusch, M. (2018): Semantic Composition of Optimal Process Service Plans in Manufacturing with ODERU. *Web Information Systems*, 14(4), Emerald.
- [J30-16] Mihailescu, R.; Ossowski, S.; Klusch, M. (2016): eCOOP: Applying Dynamic Coalition Formation to the Power Regulation Problem in Smart Grids. *Computational Intelligence*, Wiley.
- [J29-16] Klusch, M.; Kapahnke, P.; Schulte, S.; Lecue, F.; Bernstein, A. (2016): Semantic Web Service Search: A Brief Survey. *Kuenstliche Intelligenz*, 2/16, Springer.
- [J28-14] Zinnikus, I.; Byelozyorov, S.; Cao, X.; Klusch, M.; Krauss, C.; Nonnengart, A.; Spieldenner, T.; Warwas, S.; Slusallek, P. (2014): A Collaborative Virtual Workspace for Factory Configuration and Evaluation. *EAI Endorsed Transactions on Collaborative Computing*, ICST.
- [J27-13] Cao, X.; Klusch, M. (2013): Semantic-Driven K-Walker Search in Unstructured Peer-to-Peer Networks. *IEEE Computer Society Special Technical Community on Social Networking E-Letter*, 1(3), IEEE [http://stcsn.ieee.net/e-letter].
- [J26-12] Klusch, M.; Kapahnke, P. (2012): The iSeM Matchmaker: A Flexible Approach For Adaptive Hybrid Semantic Service Selection. *Web Semantics*, 15, Elsevier.
- [J25-12] Klusch, M.; Kapahnke, P. (2012): Adaptive Signature-Based Semantic Selection of Services with OWLS-MX3. *Multiagent and Grid Systems*, 8(1), IOS Press.
- [J24-10] Klusch, M.; Kapahnke, P.; Zinnikus, I. (2010): Adaptive Hybrid Semantic Selection of SAWSDL Services with SAWSDL-MX2. *Semantic Web and Information Systems*, 6(4), IGI Global.
- [J23-09] Kuester, U.; Koenig-Ries, B.; Petrie, C.; Klusch, M. (2009): On the Evaluation of Semantic Web Service Frameworks. *Semantic Web and Information Systems*, 4, IGI Global.
- [J22-09] Klusch, M.; Fries, B.; Sycara, K. (2009): OWLS-MX: A Hybrid Semantic Web Service Matchmaker for OWL-S Services. *Web Semantics*, 7(2), Elsevier.
- [J21-09] Klusch, M.; Kaufer, F. (2009): WSMO-MX: A Hybrid Semantic Web Service Matchmaker. *Web Intelligence and Agent Systems*, 7(2), IOS Press.

- [J20-06] Blankenburg, B.; Klusch, M. (2006): Privacy-Preserving Coalition Forming Between Rational Service Agents. *Künstliche Intelligenz*, KI 1/2006, BöttcherIT Verlag.
- [J19-06] Da Silva, J.C.; Klusch, M. (2006): Inference on Distributed Data Clustering. Engineering Artificial Intelligence Applications, Special Issue on Data Mining, P. Perner (eds.), Elsevier.
- [J18-06] Da Silva, J.C.; Klusch, M.; Lodi, S., Moro, G-L. (2006): Privacy-preserving agent-based distributed data clustering. *Web Intelligence and Agent Systems*, 4(2):221-238, IOS Press.
- [J17-06] Schuldt, H.; Möller, R.; Klusch, M.; Gerber, A. (2006): Next Generation Applications in Healthcare Digital Libraries using Semantic Service Composition and Coordination. *Health Informatics*, 12(2), SAGE, USA.
- [J16-05] Costa Da Silva, J.; Giannella, C.; Bhargava, R.; Kargupta, H.; Klusch, M.; (2005): Distributed Data Mining and Agents. *Engineering Applications of Artifical Intelligence*, 18 (7), Elsevier.
- [J15-04] Contreras, J.; Klusch, M.; Krawczyk, J. (2004): Numerical Solutions to Nash-Cournot Equilibria in Coupled Constraint Electricity Markets. *IEEE Transactions on Power Systems*, 19(1), February 2004, IEEE Press.
- [J14-04] Gerber, A.; Klusch, M. (2004): AGRICOLA Agenten für mobile Planungsdienste in der Landwirtschaft. *Künstliche Intelligenz*, KI 1/2004, pp 38-42, arendtap Verlag, (in German).
- [J13-03] Gerber, A.; Russ, C.; Klusch, M. (2003). Supply Web Co-ordination by an Agent-based Trading Network with Integrated Logistics Services. *Electronic Commerce Research and Applications*. Vol 2 (2), Elsevier.
- [J12-02] Klusch, M.; Gerber, A. (2002): Dynamic Coalition Formation among Rational Agents. *IEEE Intelligent Systems*, 17 (3), May/June, IEEE CS Press.
- [J11-02] Klusch, M.; Gerber, A. (2002): CASA: Agent-based Integrated Services Network for Timber Production and Sales. *IEEE Intelligent Systems*, 17(2), January/February.
- [J10-02] Sycara, K.; Widoff, S.; Klusch, M.; Lu, J. (2002): LARKS: Dynamic Matchmaking Among Heterogeneous Software Agents in Cyberspace. *Autonomous Agents and Multi-Agent Systems*, Kluwer Academic Press.

- [J09-01] Klusch, M. (2001): Information Agent Technology for the Internet: A Survey. Data and Knowledge Engineering, Special Issue on Intelligent Information Integration, D. Fensel (Ed.), Vol. 36(3), Elsevier Science, pages 337 – 372.
- [J08-00] Sierra, C; Wooldridge, M; Sadeh, N; Conte, R; Klusch, M; Treur J (2000): Agent Research and Development in Europe (Part One), *Intelligence in Industry*, Issue 4, May/June.
- [J07-00] Sierra, C; Wooldridge, M; Sadeh, N; Conte, R; Klusch, M; Treur J (2000): Agent Research and Development in Europe (Part Two), *Intelligence in Industry*, Issue 5, July/August
- [J06-00] Sierra, C; Wooldridge, M; Sadeh, N; Conte, R; Klusch, M; Treur J (2000): Agent Research and Development in Europe (Part Three), *Intelligence in Industry*, Vol 6, September/October 2000, pp. 7-13.
- [J05-00] Sierra, C; Wooldridge, M; Sadeh, N; Conte, R; Klusch, M; Treur J (2000): Agent Research and Development in Europe. *Information Services and Use*, 20(4), 2000, pp 189-202.
- [J04-99] Sycara, K.; Lu, J.; Klusch, M.; Widoff, S. (1999): Dynamic Service Matchmaking among Agents in Open Information Environments. *ACM SIGMOD Record*, Special Issue on Semantic Interoperability in Global Information Systems. A. Ouksel, A. Sheth (Eds.), ACM Press.
- [J03-98] Klusch, M.; Benn, W. (1998): Intelligente Informationagenten im Internet. Künstliche Intelligenz, Special Issue on Intelligent Information Agents, E. Andre and T. Rist (Eds.), Springer.
- [J02-94] Klusch, M. (1994): The Use of a Hybrid Neural System for the Classification of Stars. *Vistas in Astronomy*, 38 (3), Special Issue on Neural Network Applications in Astronomy, Elsevier Science, pp.299-307.
- [J01-93] Klusch, M.; Napiwotzki, R. (1993): HNS A hybrid neural system and its use for the classification of stars. *European Journal on Astronomy and Astrophysics*, Vol. 276, pp.309-319.

11.4 Book Chapters

[B18-14] Klusch, M. (2014): Service Discovery. In: Alhajj, R.; Rokne, J. (eds.), Encyclopedia of Social Networks and Mining (ESNAM); Springer.

- [B17-12] Kapahnke, P.; Klusch, M. (2012): Adaptive Hybrid Selection of Semantic Services: The iSeM Matchmaker. In: Blake, M.B.; Cabral, L.; König-Ries, B.; Küster, U.; Martin, D. (Eds.): Semantic Web Services Advancement through Evaluation; Springer.
- [B16-12] Klusch, M. (2012): The S3 Contest: Performance Evaluation of Semantic Service Matchmakers. In: Blake, M.B.; Cabral, L.; König-Ries, B.; Küster, U.; Martin, D. (Eds.): Semantic Web Services – Advancement through Evaluation; Springer.
- [B15-09] Nesbigall, S.; Warwas, S.; Kapahnke, P.; Schubotz, R.; Klusch, M.; Fischer, K.; Slusallek, P. (2010): ISReal: A Platform for Intelligent Simulated Realities. In: J. Filipe, A. Fred, B. Sharp (Eds.) Best papers of Agents and Artificial Intelligence 2010. Communications in Computer and Information Science. Springer.
- [B14-09] Kuester, U.; Koenig-Ries, B.; Klusch, M. (2009): Evaluating Semantic Web Service Technologies: Criteria,, Approaches and Challenges. In: Progressive Concepts for Semantic Web Evolution: Applications and Developments. Advances in Semantic Web Information Systems series. IGI Global.
- [B13-08] Klusch, M. (2008): Semantic Web Service Coordination. In: M. Schumacher, H. Helin, H. Schuldt (Eds.) CASCOM Intelligent Service Coordination in the Semantic Web. Chapter 4. Birkhäuser Verlag, Springer.
- [B12-08] Klusch, M. (2008): Semantic Web Service Description. In: M. Schumacher, H. Helin, H. Schuldt (Eds.) CASCOM Intelligent Service Coordination in the Semantic Web. Chapter 3. Birkhäuser Verlag, Springer.
- [B11-08] B. Blankenburg, L. Botelho, F. Calhau, A. Fernandez, M. Klusch, S. Ossowski (2008): Service Composition. In: M. Schumacher, H. Helin, H. Schuldt (Eds.) CASCOM - Intelligent Service Coordination in the Semantic Web. Chapter 5. Birkhäuser Verlag, Springer.
- [B10-08] D. Bonardi, L. Botelho, M. Klusch, A. Lopes, T. Möller, A. De Oliveira e Sousa, M. Vasirani (2008): Quantitative Analysis. In: M. Schumacher, H. Helin, H. Schuldt (Eds.) CASCOM Intelligent Service Coordination in the Semantic Web. Chapter 16. Birkhäuser Verlag, Springer.
- [B09-08] L. Botelho, A. Fernandez, M. Klusch, L. Pereira, T. Santos, P. Pais, M. Vasirani (2008): Service Discovery. In: M. Schumacher, H. Helin, H. Schuldt (Eds.) CASCOM - Intelligent Service Coordination in the Semantic Web. Chapter 16. Birkhäuser Verlag, Springer.

- [B08-04] Klusch, M. (2004): Toward Quantum Computational Agents. In: Computational Autonomy and Agents. M Nickles, M Rovatsos, G Weiss (eds.), LNAI series, 2969, Springer.
- [B07-04] Klusch M., Rist, T., Andre, E. Ishida, T., Nakashini, H. (2004): Interactive Information Agents and Interfaces. In: The Handbook of Human Factors in Web Design, RW Proctor, K-P L Vu (eds.), Lawrence Erlbaum Associates.
- [B06-03] Klusch, M., Lodi, S., Moro, G-L. (2003): Agent-Based Distributed Data Mining: The KDEC Scheme. In: Klusch, M., Bergamaschi, S., Edwards, P., Petta, P. (2003) Eds.: Intelligent Information Agents: The AgentLink Perspective. LNAI series, 2586, Springer.
- [B05-02] Klusch, M., Bürckert, H.-J., Gerber, A., Russ, C. (2002): Applications of Information Agents and Systems. In: L.C. Jain (ed.), Practical Applications of Intelligent Agents, Physica-Verlag/Springer.
- [B04-01] Klusch, M, Sycara, K. (2001): Brokering and Matchmaking for Coordination of Agent Societies: A Survey. In: Coordination of Internet Agents, A. Omicini et al. (eds.), Springer.
- [B03-00] Klusch, M. (2000): Agent-Mediated Trading: Intelligent Agents and E-Business. In: A.L.G. Hayzelden, R. Bourne (eds.): Agent Technology Applied to Networked Systems. John Wiley & Sons, Chicester, England.
- [B02-00] Klusch, M. (2000): Information Agents for Knowledge Discovery and Data Mining on the Internet. In: U. Küsters, K.D. Wilde (Eds.), Handbook Data Mining im Marketing Knowledge Discovery in Databases. Chapter 10.2, Vieweg/Gabler Verlag (in German).
- [B01-96] Klusch, M. (1996): Utilitarian coalition formation between information agents. In: S. Kirn and G. O'Hare (Eds.), Cooperative Knowledge Processing, Chapter 13, Springer, London.

11.5 Conference Papers

[C105-23] Antakli, A.; Kazimov, A.; Spieldenner, D.; Jaramillo, E.; Zinnikus, I.; Klusch, M. (2023): AJAN: An Engineering Framework for Semantic Web-Enabled Agents and Multi-Agent Systems. Proc. 21st International Conference on Practical Applications of Agents and Multiagent Systems (PAAMS), LNCS, Springer.

- [C104-23] Gupta, D.; Klusch, M. (2023): Hybrid Deep Reinforcement Learning and Planning for Safe and Comfortable Automated Driving. Proc. 34th IEEE International Intelligent Vehicles Symposium (IV), IEEE. Also: arXiv:2301.00650v1 (2022)
- [C103-23] Sprenger, J.; Hell, L.; Klusch, M.; Kobayashi, Y.; Kudo, S.; Mueller, C. (2023): Cross-Cultural Behavior Analysis of Street-Crossing Pedestrians in Japan and Germany. Proc. 34th IEEE International Intelligent Vehicles Symposium (IV), IEEE.
- [C102-23] Venkatesh, S.; Macaluso, A.; Klusch, M. (2023): QuACS: Variational Quantum Algorithm for Coalition Structure Generation in Induced Subgraph Games. Proc. ACM International Conference on Computing Frontiers (CF), ACM.
- [C101-23] Venkatesh, S.; Macaluso, A.; Klusch, M. (2023): GCS-Q: Quantum Graph Coalition Structure Generation. Proc. International Conference on Computational Science (ICCS), Springer. Also: arXiv:2212.11372v1 (2022)
- [C100-22] Venkatesh, S.; Macaluso, A.; Klusch, M. (2022): BILP-Q: Quantum Coalition Structure Generation. Proc. 19th ACM International Conference on Computing Frontiers. ACM.
- [C99-22] Macaluso, A.; Orazi, F.; Klusch, M.; Lodi, S.; Sartori, C. (2022): A Variational Algorithm for Quantum Single Layer Perceptron. Proc. 8th International Conference on Machine Learning, Optimization, and Data Science (LOD); LNCS; Springer
- [C98-21] Antakli, A.; Vozniak, I.; Lipp, N.; Klusch, M.; Mueller, C: (2021): HAIL: Modular Agent-Based Pedestrian Imitation Learning. Proc. 19th International Conference on Practical Applications of Agents and Multi-Agent Systems (PAAMS). LNCS, Springer.
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- [W14-02] Gerber, A., Klusch, M. (2002): Integration of Logistics Services into an Electronic Marektplace using Multiagent Technology. Proceedings of the 14th International CAISE Workshop on Web Services & E-Business Technology, Toronto, CA.
- [W13-01] Klusch, M., Gerber, A. (2001): CASA: Agents for mobile integrated commerce in forestry and agriculture (Long version). Proceedings of the International IJCAI Workshop E-Business & Intelligent Web, Seattle, USA.
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- [W06-95] Klusch, M. (1995): Utilitarian coalition formation between information agents for a cooperative discovery of interdatabase dependencies. Proceedings of the 19th German Conference on Artificial Intelligence KI-95, Workshop on Organizational Aspects in Multiagent Systems, Bielefeld, Germany
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- [W02-94] Klusch, M.: Towards a federative cell system FCSI for a context-based recognition of interdatabase dependencies, Proceedings of the 6th GI-Workshop "Grundlagen von Datenbanken", Bad Helmstedt, September 1994, Bericht TR-94-01, U Magdeburg, 87-91, 1994
- [W01-94] Klusch, M. (1994): Using a hybrid neural system for astronomical classification tasks. Proceedings of the ÖAGM/DAGM Symposium 'Mustererkennung' ME-94, Wien, Informatik XPress 5, pp.281-287

11.7 Technical Reports

- [R04-22] Mueller, C; Vogt, R.; Nonnengart, A.; Klusch, M.; Meyer-Vitali, A. (2022): Security of AI Systems: Fundamentals - Security Aspects of Symbolic and Hybrid AI Systems. Report of Federal Office for Information Security (BSI), Bonn, Germany.
- [R03-04] Siekmann, J.; Fischer, K.; Hutter, D.; Klusch, M.; Stephan, W. (2004): Security in Mobile Multiagent Systems. Final Project Report BMBF-FKZ 01 IW A01, DFKI Saarbrücken, Germany.
- [R02-98] Sycara, K.; Lu, J.; Klusch, M. (1998): Interoperability among Heterogeneous Software Agents on the Internet. Technical Report CMU-RI-TR-98-22, Carnegie Mellon University, Robotics Institute, Pittsburgh, USA
- [R01-93] Klusch, M. (1993): HNS A Hybrid Neuronal System for Classification of Stars. Universität Kiel, Institut für Informatik und Praktische Mathematik, Technischer Bericht 9308, Kiel, Germany

12. Scientific Talks

I have given scientific talks (75) at different institutions and conferences listed as follows. This list does not include the large number of my scientific presentations at companies and classified project review / scientific advisory board meetings.

12.1 Invited Talks

- Intelligent Agents and Semantic Technologies for Industry 4.0.
 Keynote, International ACM Conference on Web Intelligence (WI), Leipzig, Germany, 26.08.2017.
- Agents and Semantics for Future Internet Applications: Perspectives and Challenges.
 Keynote, 30th ACM Symposium on Applied Computing (SAC), Salamanca, Spain, 16.4.2015.
- Agents and Semantics for Human Decision-Making.
 Keynote, 6th International Conference on Agents and Artificial Intelligence (ICAART), Angers, France, 6-8 March 2014.
- 4. The Service World Empowered By Agents and Semantics: Showcases of Intelligent Service Coordination.
 - **Keynote**, 26th International Conference on Industrial Engineering and Applications of Intelligent Systems (IEA/AIE), Amsterdam, The Netherlands, 18.6.2013.
- 5. The International S3 Contest Series: Benchmarking of Semantic Service Selection.
 Research Seminar Talk, Department for AI, University of Mannheim, Germany, 22.3.2013
- Model-Driven Agents and Semantic Technologies for the Digital Factory.
 Expert Talk, VDI Expertenforum des GMA Fachausschusses 5.15 Agentensysteme,
 Stuttgart, Germany, 8.10.2012 (with Dr. Fischer)
- 7. Intelligent Service Coordination in the Future Internet.
 Invited Research Colloquium Talk, Department of Computer Science and Engineering, University of South Carolina, Columbia, USA, 11.1.2012
- 8. Agents and Semantics for Intelligent Simulations in the 3D Internet.
 Invited Research Seminar Talk @ Center for Complex Software Systems and Services,
 Swinburne University, Melbourne, Australia, 30.4.2011

- Agents and Semantics for Intelligent Simulations in the 3D-Internet.
 Keynote, 5th International Conference on Semantic and Digital Media Technology (SAMT), Saarbrücken, Germany, 1.12.2010
- 10. ISReal: Intelligent Simulation of Realities in the 3D Internet.
 Invited Research Colloquium Talk @ CSD, University of Koblenz-Landau, Germany, 26.8.2010
- 11. ISReal: Semantics, Agents and Services for the Future 3D-Internet.
 Keynote, 8th International Workshop on Service-Oriented Computing: Agents, Semantics and Engineering (SOCASE), Toronto, Canada, 11.5.2010
- Agents and Semantics: Empowering the Internet of Services.
 KSRI Speaker Series, Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany, 13.1.2010
- 13. Semantic Service Retrieval: Tools, Evaluation and Challenges.
 Keynote at European Conference on Web Services ECOWS Semantic Web Services Challenge Workshop, Eindhoven, The Netherlands, 8.11.2009
- 14. Agents and Semantics: Empowering the Internet of Services.
 Distinguished CETINIA Lecture Series, Universidad Rey Juan Carlos, Madrid, Spain, 24.11.2009
- 15. Agent-Based Semantic Service Coordination.
 CS3 Seminar Talk, Center for Complex Software Systems and Services, Swinburne University, Melbourne, Australia, 24.4.2009
- 16. Agent-Based Semantic Service Coordination.
 Habilitation Talk, University of the Saarland, Saarbruecken, Germany, 16.2.2009.
- 17. Fraunhofer Institute for Information and Data Processing (IITB), Symposium on Agent-Based Computing, Karlsruhe, June 19, 2008
- 18. 2nd German Conference on Multi-Agent System Technologies MATES 2004, Erfurt, Germany, September 29, 2004
- 19. University of Trento, Department of Information and Communication Technology Trento, Italy, Januar 13, 2003
- 20. University of Twente, Computer Science Department, Enschede, The Netherlands, April 15, 2003
- 21. International University of Bremen, Bremen, Germany, April 3, 2003

- 22. University of Osnabrück, Osnabrück, April 1, 2003
- 23. University of Trento, Department of Information and Communication Technology, Trento, Italy, July 12, 2002.
- 24. Danube University Krems, Austria, December 11, 2001
- 25. University of Aberdeen, Computer Science Department, Aberdeen, Scotland (UK), May 5, 2000
- 26. Free University of Berlin, Institut für Informatik, Berlin, Germany, October 11, 2001
- 27. **Keynote**. International Conference IMPACT-99, Seattle, USA, Nov 2, 1999
- 28. Invited Expert Talk. European Commission, ISPO Meeting. Brussels, Belgium, June 28, 1999
- 29. University of Karlsruhe, AIFB Karlsruhe, Germany, June 25, 1999
- 30. Deutsches Forschungszentrum für Künstliche Intelligenz, Saarbrücken, Germany, October 12, 1998
- 31. ETH Zürich, Database and Information Systems, Zürich, Switzerland, July 10, 1998
- 32. ETH Zürich, Computer Science, Zürich, Switzerland, July 9, 1998
- 33. **Keynote**. 1st German Joint Workshop on DAI, Databases and Information Retrieval (VDI) Chemnitz, Germany, April 17, 1998
- 34. Arizona State University, Electrical Engineering and Computer Science, Tempe/Phoenix AZ, USA, February 5, 1995
- 35. University of Cambridge, Institute for Astronomy and Astrophysics. Cambridge, UK, September 28, 1994
- 36. Technical University of Vienna, Department for Economy and Business. Vienna, Austria, April 27, 1994

12.2 Conference Talks

1. HyLEAR: Hybrid Deep Reinforcement Learning and Planning for Safe and Comfortable Automated Driving. Proc. 34th IEEE International Intelligent Vehicles Symposium (IV), Anchorage, Alaska (USA), 2023

- 2. HYLEAP: Hybrid Online POMDP Planning and Deep Reinforcement Learning for Safer Self-Driving Cars. 30th IEEE International Intelligent Vehicles Symposium (IV); Paris, France, 2019
- 3. Condition Monitoring Based on Statistical, Semantic and Hybrid Signal Processing. (with T. Schneider) Public Meeting of Scientific Advisory Board of the Association for Sensors and Measurement (AMA) e.V., Saarbrücken, Germany, 16.03.2016
- ICM-Hydraulic: Semantics-Empowered Condition Monitoring of Hydraulic Machines.
 11th ACM International Conference on Semantic Systems (SEMANTICS); Vienna, Austria, 16.9.2015.
- 5. ICM-Wind: Semantics-Empowered Fluid Condition Monitoring of Wind Turbines. 29th ACM Symposium on Applied Computing (SAC); Gyeongju, Korea, 26.3.2014.
- 6. ISReal: Open Platform for Semantic-Based Simulation in the 3D-Internet. 9th International Semantic Web Conference, Shanghai, China, 9.11.2010
- 7. iSeM: Approximated Reasoning for Adaptive Hybrid Selection of Semantic Services. 4th IEEE International Conference on Semantic Computing (ICSC), Pittsburgh, USA, 23.9.2010
- 8. OWLS-MX3: Adaptive Hybrid Semantic Matchmaker for OWL-S Services. 3rd International Workshop SMR2 der International Semantic Web Conference (ISWC), Washington DC, USA, 25.10.2009
- Adaptive Hybrid Semantic Selection of SAWSDL Services.
 6th European Semantic Web Conference (ESWC), Heraklion, Greece, 2.5.2009
- 10. Quantum Service Selection.
 International IEEE/ACM International Conference on Intelligent Agent Technology (IAT), Sydney, Australia, 12.12..2008
- 11. Toward Quantum Matchmaker Agents.
 International IEEE/ACM International Conference on Intelligent Agent Technology (IAT), Sydney, Australia, 10.12.2008
- 12. Model-Driven Semantic Web Service Matchmaking for Collaborative Business Processes.

 International IEEE/ACM International Conference on Intelligent Agent Technology (IAT), Sydney, Australia, 10.12.2008

- 13. Model-driven Approach to the Integration of Multiagent Systems and Semantic Web Services.
 - International IEEE/ACM International Conference on Intelligent Agent Technology (IAT), Sydney, Australia, 12.12.2008
- 14. Semantic Web Service Selection with SAWSDL-MX.

 2nd International Workshop on Semantic Matchmaking and Resource Retrieval (SMR2) at ISWC, Karlsruhe, Germany, 27.10.2008
- 15. Model-Driven Semantic Web Service Matchmaking for Collaborative Business Processes.
 - 2nd International Workshop on Semantic Matchmaking and Resource Retrieval (SMR2) at ISWC, Karlsruhe, Germany, 27.10.2008
- 16. Hybrid Semantic Web Service Retrieval: A Case Study with OWLS-MX.

 2nd IEEE International Conference on Semantic Computing (ICSC), Santa Clara, USA,
 5.8.2008
- 17. Hybrid Semantic Web Service Matchmaking with OWLS-MX: Benefits and Pitfalls. 6th International Semantic Web Conference (ISWC), Busan, Korea, 11.12.2007
- 18. Deployed Semantic Services for the Common User of the Web: A Reality Check. 2nd IEEE International Conference on Semantic Computing (ICSC), Santa Clara, USA, 5.8.2008
- 19. Semantic Web Services: A Preliminary Reality Check. 6th International Semantic Web Conference (ISWC), Busan, Korea, 11.12.2007
- Fast Composition Planning of OWL-S Services and Application.
 4th IEEE European Conference on Web Services, Zurich, Switzerland, 2006
- 21. WSMO-MX: A Logic Programming Based Hybrid Service Matchmaker. 4th IEEE European Conference on Web Services, Zurich, Switzerland, 2006
- 22. Fast Dynamic Re-Planning of Composite OWL-S Services.

 2nd IEEE International Workshop on Service Composition, Hongkong, China, 2006
- 23. Evaluation of Service Composition Planning with OWLS-XPlan. 2nd IEEE International Workshop on Service Composition, Hongkong, China, 2006
- 24. RS2D: Fast Adaptive Search for Semantic Web Services in Unstructured P2P Networks.
 - 5th International Semantic Web Conference, Athens, USA, 2006

- 25. Risk Driven Semantic P2P Service Retrieval. 6th IEEE International Conference on P2P Computing, Cambridge, UK, 6.9.2006
- 26. Hybrid Semantic Web Service Retrieval with OWLS-MX.
 5th International Conference on Autonomous Agents and Multi-Agent Systems, Hakodate, Japan, 2006
- 27. Secure Web Service Composition.
 - 1st International workshop on Privacy and Security of Agent-Based Collaborative Environments (PSACE), Hakodate, Japan, 2006
- 28. Semantic Web Service Composition Planning with OWLS-XPlan.

 1st International AAAI Fall Symposium on Agents and the Semantic Web, Arlington VA, USA, 2005
- 29. Coordination of Quantum Internet Agents.

 4th International Conference on Autonomous Agents and Multiagent Systems,
 Utrecht, The Netherlands, 2005
- 30. Privacy-Preserving Coalition Formation Among Rational Service Agents.

 3rd German Conference on Multi-Agent System Technologies, Koblenz, Germany, 2005
- 31. CASA: A Distributed Holonic Multiagent Architecture for Timber Production.

 1st International Conference on Autonomous Agents and Multi-Agent Systems,
 Bologna, Italy, 2002
- 32. An agent-based mobile e-commerce service platform for forestry and agriculture. 2nd Asia-Pacific Conference on Intelligent Agent Technology, Maebashi, Japan, 2001.
- 33. Coalition Formation in a Power Transmission Planning Environment.

 2nd International Conference on Practical Applications of Multi-Agent Systems, London, UK, 1997
- 34. A Polynomial Kernel-Oriented Coalition Algorithm for Rational Information Agents. 2nd International Conference on Multi-Agent Systems, Kyoto, Japan, 1996
- 35. Cooperative Recognition of Interdatabase Dependencies.
 International Workshop on Description Logics, Rome, Italy, 1995
- 36. FCSI: Towards context-based recognition of interdatabase dependencies.

 18th International ETCE, Symposium on Knowledge-based Systems in Engineering Applications, Houston, USA, 1995

- 37. Coalition-based cooperation between intelligent agents for a contextual recognition of interdatabase dependencies.
 - 1st International Conference on Multi-Agent Systems, San Francisco, USA, 1995
- 38. Using a hybrid neural system for astronomical classification tasks.

 OAGM/DAGM International Joint Symposium on Pattern Recognition, Vienna, Austria, 1994
- 39. HNS: a hybrid neural system and its use for the classification of stars.

 IEEE International Joint Conference on Neural Networks, Nagoya, Japan, 1993

13. Personal Referees

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