

# **Curriculum Vitae**

**Priv.-Doz. Dr. Matthias Klusch**

# Content

<b>1. PERSONAL DATA.....</b>	<b>3</b>
<b>2. EDUCATION .....</b>	<b>4</b>
<b>3. ACADEMIC AND PROFESSIONAL CAREER.....</b>	<b>5</b>
<b>4. RESEARCH VISITS .....</b>	<b>8</b>
<b>5. RESEARCH COORDINATION .....</b>	<b>9</b>
<b>6. RESEARCH FUND RAISING .....</b>	<b>10</b>
<b>7. EDITORIAL BOARD MEMBERSHIPS .....</b>	<b>18</b>
<b>8. PROJECT REVIEWING .....</b>	<b>19</b>
<b>9. ORGANISATION OF CONFERENCES .....</b>	<b>20</b>
9.2 CONFERENCES AND WORKSHOPS .....	20
<b>10. PROGRAM COMMITTEE MEMBERSHIPS.....</b>	<b>23</b>
10.1 CONFERENCES .....	23
10.2 WORKSHOPS.....	32
<b>11. PUBLICATIONS .....</b>	<b>38</b>
11.1 BOOKS.....	38
11.2 SPECIAL ISSUES OF JOURNALS .....	41
11.3 JOURNAL PAPERS .....	41
11.4 BOOK CHAPTERS.....	45
11.5 CONFERENCE PAPERS .....	47
11.6 WORKSHOP PAPERS .....	58
11.7 TECHNICAL REPORTS.....	62
<b>12. SCIENTIFIC TALKS.....</b>	<b>63</b>
12.1 INVITED TALKS.....	63
12.2 CONFERENCE TALKS.....	66
<b>13. PERSONAL REFEREES.....</b>	<b>70</b>

Last update of this document on April 2, 2025

## 1. Personal Data

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

Address (office): German Research Center for Artificial Intelligence (DFKI) GmbH  
Uni Campus, Geb. D3.2, Stuhlsatzenhausweg 3  
D-66123 Saarbrücken  
Tel: +49-681-85775-5297; Fax: +49-681-85775-2235  
E-Mail: [klusch@dfki.de](mailto:klusch@dfki.de)  
Web: <http://www.dfki.de/~klusch/>

Address (private): Max-Braun-Str. 34  
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 9090 ([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 Coordination*.  
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: *Cooperative Information Agents in the Internet*.
- 1992            **M.Sc.** (Diploma, Dipl.-Inform.) 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 AI 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:

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) for innovative means of intelligent service coordination and decision-making in smart information system.

**Vision.** Intelligent information systems in the future Internet including the Quantum Internet are envisioned to provide users with assisted real-time access to relevant data and services anywhere, anytime, on any device, safe and secure, and in an intelligent way. Agent technologies for individual or joint AI action planning and learning, inter-agent communication and coordination can be used to implement autonomous, proactive, rational, adaptive and collaborative behaviour of such systems with intelligent agents. Semantic technologies enable the semantic interoperation of distributed heterogeneous data, services, and processes in due course of their coordination (search, composition, negotiation, execution) by these agents for smart information systems in support of industry and business, as well as our private and social life.

**Research.** The research of the I2S team for intelligent information systems is within two major directions in AI, that are hybrid AI and quantum AI.

*Hybrid AI* (including neuro-explicit AI) is concerned with the combination of different methods from one or different subfields of AI such as machine learning, automated planning, vision and multiagent systems. Our research in hybrid AI focuses on the development of scalable and efficient methods for hybrid learning, semantic reasoning and planning under uncertainty, optimization, agent behavior modeling, and action (service) coordination in multiagent systems for smart information systems. Quantum AI (QAI) is concerned with the use of quantum computing for solving computationally hard problems in AI, and vice versa. Our research in QAI focuses on the development and investigation of the potential utility of direct quantum and hybrid quantum-classical algorithms for machine learning, planning and scheduling, vision, and action (service) coordination in multiagent systems in concrete use cases.

**Applications.** The research of the I2S team has been implemented in partly awarded AI tools and systems for various applications including (but not limited to):

- Satellite-based earth observation and mission planning
- Safe navigation by self-driving cars
- Smart assistance in health care, migration support, and social media
- Process optimisation in cloud manufacturing
- Machine condition monitoring and maintenance
- Adaptive business processes in smart retail environments
- Intelligent simulation of virtual production lines
- Decentralized power regulation in smart micro-grids
- Agricultural production planning and logistics

Some of our information system prototypes were demonstrated at the CEBIT fair, the Hannover Industry fair (HIM), and the international Consumer Electronics Show (CES).

Current main application areas of our research are (but not limited to): Autonomous driving, aerospace, manufacturing, energy management.

#### **Scientific awards:**

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

From 2010 - 2022, I have been **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 Institute (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 Network of Excellence for Agent-Based Computing  
                  AgentLink (Coordinator)  
                  <http://www.agentlink.org/activities/sigs/sig3.html>
- 1999 - 2011    Research Group Multiagent Systems (Deputy Head / Co-Head)
- 2001 - 2003    Working Groups of the European Coordinated Action Agentcities.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. QAI2C (BMBF, 2025-2028, Quantum AI for Coordination and Classification)
2. MOMENTUM (BMBF, 2022-2025, Hybrid AI for Trustworthy Human-Machine Interactions in Complex Environments)
3. QAICO (BMBF, 2021-2023, Quantum AI for coordination and cooperation)
4. WELCOME (EC H2020 SC6, 2020-2023, Intelligent Conversation Agent-Based Services for Reception, Orientation and Integration of Third-Country Nationals in the EU)
5. CREMA (2014-2017, EC H2020 FoF; Intelligent cloud-based manufacturing)
6. ICM-Hydraulic (2013-2015, HYDAC GmbH, ZeMA GmbH; ICM-Wind succ.)
7. ICM-Wind (2012, ZeMA GmbH, HYDAC GmbH; Hybrid semantic sensor data analysis for fluid condition monitoring in wind turbines)
8. SocialSensor (2011-2014, EC FP7 IP; Semantic Social Web), WP3 Leader.
9. Collaborate3D (2011-2014, BMB+F; Collaborative 3D simulation of realities)
10. EMERGENT Software Cluster (BMB+F, 2010 – 2015), Task Q1.G2.3 Leader
11. ISReal (2009-2012, BMB+F; Intelligent 3D simulation of realities)
12. MODEST (2008, BMB+F; Model-driven agents for semantic Web services)
13. AT (2008–2012, EC FP7 COST; Agreement Technologies)
14. SCALLOPS (2004–2007, BMB+F; Secure agent-based pervasive computing)
15. SEMAS (2001–2003, BMB+F; Secure Multi-Agent Systems)
16. AGRICOLA, AGRICOLA-2 (2001-2003, 2006, Saarland government; CASA succ.)
17. CASA (2000–2002, Saarland government; Agent-Based Agriculture and Forestry App)
18. CASCOM (2003–2007, EC FP6 STREP; Mobile Semantic Web Services)
19. Agentcities.RTD (2001–2003, EC FP5 STREP; Agent-Based Services)
20. AgentCities.NET (2001–2003, EC FP5, CA)
21. AgentLink I – III (1998–2003; EC FP5 and FP6 CA; Agent-Based Computing)

- 22. AITelcom (2000–2001, Alcatel AG, Germany; AI for Telecom Apps)
- 23. 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

1. **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 AI 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](http://www.cost.esf.org/index.php?id=110&action_number=IC0801)

5. **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: 22.21 MEUR

Project funding for DFKI: 12.38 MEUR

### 1. **QAI2C – Quantum AI for Coordination and Classification**

[Teilvorhaben im Verbundprojekt QAIAC - Quantum AI for the Automotive Value Chain]

Funding: 0.51 MEUR [DFKI]

Source: BMB+F

Duration: 2/2025-2/2028

Objective: Basic research and development of new quantum-assisted AI methods for agent-based coordination of actions in rational coalitions and through deep reinforcement multi-agent learning as well as deep unsupervised learning for classification, which can be more efficient compared to selected classical reference methods. The research work is carried out with reference to the general problems of

the use cases of flexible production process planning, capacitive vehicle route planning and quality assessment of finite element networks in component development.

Partners in QAIAC: FZ Jülich (Koordinator), DFKI, ZF, Mercedes-Benz

**2. 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-Benz, Volkswagen, Bosch

**3. MOMENTUM** – Hybrid AI for Trustworthy Human-Machine Interactions in Complex Environment

Funding: 1.45 MEUR

Source: BMB+F [DFKI Korridor]

Duration: 8/2022 – 8/2025

**4. 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.

5. **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.

6. **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 product and bio-molecular design.

7. **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/>

8. **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](http://www.dfki.de/~klusch/isreal)

## 9. **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](http://www.dfki.de/~klusch/modest)

## 10. **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.

## 11. **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 Environment (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 prototypical 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**

AI 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 scientific 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.

1. 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>
2. International Journal of Intelligent Information Systems (**IJIS**), Springer. Since 2018.  
<https://www.springer.com/computer/database+management+&+information+retrieval/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>
3. 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 Ministry 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.

1. Steering committee member of **IEEE/ACM International Conference on Web Intelligence (WI)**, since 2015
2. 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/>
3. Founder and coordinator of the **international Semantic Service Selection (S3) Contest**, from 2007 to 2013. <http://www.dfki.de/~klusch/s3/>
4. 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-conference-ranking.org](http://www.cs-conference-ranking.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 14<sup>th</sup> German Conference on Multiagent System Technologies (MATES), Klagenfurt, Austria, 2016
- Track Chair of 11<sup>th</sup> Extended Semantic Web Conference (ESWC), Heraklion, Greece; ESWC Track on Services, Processes and Cloud Computing; 2014.
- Co-Chair of the 11<sup>th</sup> German Conference on Multiagent System Technologies (MATES), Koblenz, Germany, 2013.
- Track Chair of 9<sup>th</sup> Extended Semantic Web Conference (ESWC), Heraklion, Greece; ESWC Track on Services, Processes and Cloud Computing; 2012.
- Program Vice-Chair of the 11<sup>th</sup> IEEE/ACM International Conference on Intelligent Agent Technology (IAT), Lyon, France, 2011.

- Program Committee Vice Chair of the 6<sup>th</sup> 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 6<sup>th</sup> International Semantic Web Conference (ISWC), Busan, Korea, 2007.
- Program Co-Chair of the IEEE International Conference on Intelligent Agent Technology (IAT), Silicon Valley, USA, 2007.
- Chair of the 5<sup>th</sup> 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 4<sup>th</sup> IEEE/ACM Conference on Web Intelligence (WI), Compiègne, France, 2005.
- Chair of the 3<sup>rd</sup> German Conference on Multiagent System Technologies (MATES), Koblenz, 2005.
- Vice Program Committee Chair of the 4<sup>th</sup> International IEEE Conference on Intelligent Agent Technology (IAT 2004), October, China, 2004.
- Program Co-Chair of the 3<sup>rd</sup> International IEEE Conference on Intelligent Agent Technology (IAT 2003), October, Canada, 2003.
- Program Co-Chair of the 1<sup>st</sup> German Conference on Multiagent System Technologies (MATES), Erfurt, Germany, September 22 - 25, 2003.

**Other committed roles of scientific event organisation:**

- Co-Chair of UPLINX Machine Learning School (MLS), Saarbrücken, Germany, 2019.
- Sponsorship Co-Chair of the 15<sup>th</sup> International Conference on Principles and Practice of Multi-Agent Systems (PRIMA), 2012.
- Publicity Chair of the 4<sup>th</sup> 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 6<sup>th</sup> International Workshop on Service-Oriented Computing: Agents, Semantics, and Engineering (SOCASE) at the AAMAS 2008 Conference, Portugal, 2008.
- Co-Chair of the 1<sup>st</sup> International Joint Workshop on Service Matchmaking and Resource Retrieval in the Semantic Web (SMR2), 2007.
- Co-Chair of the European 3<sup>rd</sup> Agentcities Information Days, Barcelona, Spain, February 6-8, 2003.
- Co-Chair of the international AAI Workshop on Coalition Formation in Dynamic Multiagent Environments, July 28 - 29, USA, 2002.
- Local Co-Chair of the 2<sup>nd</sup> 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 1<sup>st</sup> 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 (**314**) of conferences (220) and workshops (94) are listed in inverted chronological order and sorted by major research areas in the following.

### 10.1 Conferences

#### Semantic Technologies

1. 24<sup>th</sup> Extended Semantic Web Conference (**ESWC**), Portoroz, Slovenia, 2025
2. 23<sup>rd</sup> Extended Semantic Web Conference (**ESWC**), 2024
3. 22<sup>nd</sup> Extended Semantic Web Conference (**ESWC**), 2023
4. 20<sup>th</sup> International Semantic Web Conference (**ISWC**), virtual, 2021
5. 18<sup>th</sup> Extended Semantic Web Conference (**ESWC**), virtual, 2021
6. 19<sup>th</sup> International Semantic Web Conference (**ISWC**), virtual, 2020
7. 17<sup>th</sup> Extended Semantic Web Conference (**ESWC**), virtual, 2020
8. 18<sup>th</sup> International Semantic Web Conference (**ISWC**), Auckland, NZ, 2019
9. 16<sup>th</sup> Extended Semantic Web Conference (**ESWC**), Portoroz, Slovenia, 2019
10. 17<sup>th</sup> International Semantic Web Conference (**ISWC**), Monterey (CA), USA, 2018
11. 16<sup>th</sup> International Semantic Web Conference (**ISWC**), Vienna, Austria, 2017
12. 14<sup>th</sup> Extended Semantic Web Conference (**ESWC**), Portoroz, Slovenia, 2017
13. 15<sup>th</sup> International Semantic Web Conference (**ISWC**), Kobe, Japan, 2016
14. 13<sup>th</sup> Extended Semantic Web Conference (**ESWC**), Crete, Greece, 2016
15. 14<sup>th</sup> International Semantic Web Conference (**ISWC**), USA, 2015
16. 12<sup>th</sup> Extended Semantic Web Conference (**ESWC**), Crete, Greece, 2015
17. 13<sup>th</sup> International Semantic Web Conference (**ISWC**), Italy, 2014
18. 4<sup>th</sup> Joint International Semantic Technology Conference (**JIST**), Thailand, 2014.
19. 11<sup>th</sup> Extended Semantic Web Conference (**ESWC**), Crete, Greece, 2014;  
**Senior Program Committee Member**
20. 12<sup>th</sup> International Semantic Web Conference (**ISWC**), Sydney, Australia, 2013
21. 10<sup>th</sup> Extended Semantic Web Conference (**ESWC**), Montpellier, France, 2013
22. 11<sup>th</sup> International Semantic Web Conference (**ISWC**), Boston, USA, 2012
23. 11<sup>th</sup> International Conference on Ontologies, Databases and Applications of Semantics (**ODBASE**), Rome, Italy, 2012
24. 8<sup>th</sup> Extended Semantic Web Conference (**ESWC**), Heraklion, Greece, 2012
25. 10<sup>th</sup> International Semantic Web Conference (**ISWC**), Bonn, Germany, 2011
26. 10<sup>th</sup> Intl. Conference on Ontologies, DataBases, and Applications of Semantics (**ODBASE**), Crete, Greece, 2011.
27. 4<sup>th</sup> Asian Semantic Web Conference (**ASWC**), Shanghai, China, 2009
28. 8<sup>th</sup> International Semantic Web Conference (**ISWC**), Washington DC, USA, 2009
29. 1<sup>st</sup> International Conference on Semantic Systems (**i-Semantics**), Graz, Austria, 2009
30. 7<sup>th</sup> International Semantic Web Conference (**ISWC**), Karlsruhe, Germany, 2008

31. 3<sup>rd</sup> Asian Semantic Web Conference (**ASWC**), Thailand, 2008.
32. 5<sup>th</sup> European Conference on Semantic Web Services (**ESWC**), Tenerife, Spain, 2008.
33. 4<sup>th</sup> European Conference on Semantic Web Services (**ESWC**), Innsbruck, Austria, 2007
34. 5<sup>th</sup> International Semantic Web Conference (**ISWC**), Athens, USA, 2006.
35. 3<sup>rd</sup> European Semantic Web Conference (**ESWC**), Budva, Montenegro, 2006.
36. 4<sup>th</sup> International. Semantic Web Conference (**ISWC**), Galway, Ireland, 2005.
37. 1<sup>st</sup> International IFIP Conference on Industrial Applications of the Semantic Web (**IASW**), Jyväskylä, Finland, August 2005.
38. 3<sup>rd</sup> International Semantic Web Conference (**ISWC**), Hiroshima, Japan, November 2004
39. 3<sup>rd</sup> Intl. Conference on Ontologies, DataBases, and Applications of Semantics (**ODBASE**), Cyprus, 2004.
40. 2<sup>nd</sup> Intl. Semantic Web Conference (**ISWC**), Sundial Resort, Sanibel Island, Florida, USA, 2003

### **Agent-Based Computing**

41. 26<sup>th</sup> International Conference on Principles and Practice of Multi-Agent Systems (**PRIMA**), Modena, Italy, 2025
42. 23<sup>rd</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Lille, France, 2025
43. 18<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Marbella, Spain, 2025
44. 25<sup>th</sup> International Conference on Principles and Practice of Multi-Agent Systems (**PRIMA**), 2024
45. 22<sup>nd</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), 2024
46. 17<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), virtual, 2024
47. 21<sup>st</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), 2023
48. 16<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), virtual, 2023
49. 15<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), virtual, 2022
50. 20<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), 2022
51. 14<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), virtual, 2021
52. 19<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2021
53. 13<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), virtual, 2020



54. 18<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2020
55. 12<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Valetta, Malta, 2020
56. 4<sup>th</sup> IEEE International Conference on Agents (**ICA**), Jinan, China, 2019
57. 17<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Avila, Spain, 2019
58. 11<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Prague, Czech Republic, 2019
59. 9<sup>th</sup> International Conference on Industrial Applications of Holonic and Multi-Agent Systems (**HoloMAS**), Linz, Austria, 2019
60. 3<sup>rd</sup> IEEE International Conference on Agents (**ICA**), Singapore, 2018
61. 10<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Funchal, Portugal, 2018
62. 16<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Toledo, Spain, 2018
63. 8<sup>th</sup> International Conference on Industrial Applications of Holonic and Multi-Agent Systems (**HoloMAS**), Lyon, France, 2017
64. 2<sup>nd</sup> IEEE International Conference on Agents (**ICA**), Beijing, China, 2017
65. 15<sup>th</sup> German Conference on Multiagent System Technologies (**MATES**), Leipzig, Germany, 2017
66. 15<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Porto, Portugal, 2017
67. 9<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Porto, Portugal, 2017
68. 15<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), Singapore, 2016; *Senior Program Committee Member*
69. 14<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Sevilla, Spain, 2016
70. 1<sup>st</sup> IEEE International Conference on Agents (**ICA**), Matsue, Japan, 2016
71. 8<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Rome, Italy, 2016
72. 2<sup>nd</sup> (13<sup>th</sup>) European Conference on Multi-Agent Systems (**EUMAS**), Athens, Greece, 2015
73. 15<sup>th</sup> IEEE/ACM International Conference on Intelligent Agent Technology (**IAT**), Singapore, 2015
74. 7<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Lisbon, Portugal, 2015
75. 13<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2015
76. 12<sup>th</sup> German Conference on Multiagent System Technologies (**MATES**), Stuttgart, Germany, 2014
77. 13<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), Paris, France, 2014

78. 12<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2014
79. 6<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Angers, France, 2014
80. 14<sup>th</sup> IEEE/ACM International Conference on Intelligent Agent Technology (**IAT**), Warsaw, Poland, 2014
81. 11th German Conference on Multiagent System Technologies (**MATES**), Koblenz, Germany, 2013.
82. 13<sup>th</sup> IEEE/ACM International Conference on Intelligent Agent Technology (**IAT**), Atlanta, USA, 2013
83. 12<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), Saint Paul, USA, 2013
84. 11<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2013
85. 5<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Barcelona, Spain, 2013
86. 12<sup>th</sup> IEEE/ACM International Conference on Intelligent Agent Technology (**IAT**), Macau, China, 2012
87. 10th German Conference on Multiagent System Technologies (**MATES**), Trier, Germany, 2012
88. 11<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), Valencia, Spain, 2012
89. 10<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2012
90. 4<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Vilamoura, Portugal, 2012
91. 9<sup>th</sup> German Conference on Multiagent System Technologies (**MATES**), Berlin, Germany, September, 2011
92. 9<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2011
93. 10<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), Taipei, Taiwan, 2010
94. 3<sup>rd</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Rome, Italy, 2011
95. 2<sup>nd</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Valencia, Spain, 2010
96. 9<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), Toronto, Canada, 2010
97. 8<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2010
98. 7<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2009
99. 8<sup>th</sup> International Conference on Autonomous Agents and Multi-Agent Systems (**AAMAS**), Budapest, Hungary, 2009

100. 7<sup>th</sup> International Conference on Autonomous Agents and Multi-Agent Systems (**AAMAS**), Estoril, Portugal, 2008
101. 8<sup>th</sup> International Conference on Self-Organization and Autonomic Systems in Computing and Communications (**SOAS**), Leipzig, Germany, 2007.
102. 6<sup>th</sup> International Joint Conference on Autonomous Agents and Multi-Agent Systems (**AAMAS**), Hawaii, USA, 2007. *Senior Program Committee Member.*
103. 7<sup>th</sup> Intl Conference on Self-Organization and Autonomic Systems in Computing and Communications (**SOAS**), Erfurt, Germany, 2006.
104. 5<sup>th</sup> Intl. Conference on Autonomous Agents and Multi-Agent Systems (**AAMAS**), Hakodate, Japan, May 2006.
105. 4<sup>th</sup> German Conference on Multiagent System Technologies (**MATES**), Erfurt, Germany, September, 2006
106. 1<sup>st</sup> Intl Conference on Self-Organization and Adaptation of Multi-agent and Grid Systems (**SOAS**), Glasgow, UK, December 2005
107. 4<sup>th</sup> Intl. Conference on Autonomous Agents and Multi-Agent Systems (**AAMAS**), Utrecht, The Netherlands, July 2005
108. 4<sup>th</sup> Intl. Central and Eastern European Conference on Multi-Agent Systems (**CEEMAS**), Budapest, Hungary, September 2005
109. 2<sup>nd</sup> Intl. Conference on Industrial applications of Holonic and Multi-Agent Systems (**HoloMAS**), Copenhagen, Denmark, 2005
110. 3<sup>rd</sup> Intl. Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), New York, USA, 2004.
111. 3<sup>rd</sup> Intl. Central and Eastern European Conference on Multi-Agent Systems (**CEEMAS**), Prague, Czech Republic, 2003
112. 1<sup>st</sup> Intl. Conference on Industrial Applications of Holonic and Multi-agent Systems (**HoloMAS**), Prague, Czech Republic, 2003
113. 1<sup>st</sup> Intl. Joint Conference on Autonomous Agents and Multi-Agent Systems (**AAMAS**), Bologna, Italy, 2002
114. 5<sup>th</sup> Intl. Conference on Autonomous Agents (**Agents**), Montreal, Canada, 2001; *Senior Program Committee Member.*
115. 2<sup>nd</sup> Asia-Pacific Conference on Intelligent Agent Technology (**IAT**), Japan, 2001.
116. 6<sup>th</sup> Intl. Conference on Practical Application of Intelligent Agents and Multi-Agent Technology (**PAAM**), Manchester, UK, 2001.
117. 4<sup>th</sup> Intl. Conference on Multiagent Systems (**ICMAS**), Boston, USA, 2000.
118. 3<sup>rd</sup> Intl. Conference on Autonomous Agents (**Agents**), Seattle, USA, 1999.
119. 4<sup>th</sup> Intl. Conference on Practical Application of Intelligent Agents and Multi-Agent Technology (**PAAM**), London, UK, 1999
120. 2<sup>nd</sup> Intl. Conference on Autonomous Agents (**Agents**), Minneapolis, USA, 1998.

### **Artificial Intelligence**

121. 48<sup>th</sup> German Conference on Artificial Intelligence (**KI**), 2025
122. 47<sup>th</sup> German Conference on Artificial Intelligence (**KI**), 2024
123. 46<sup>th</sup> German Conference on Artificial Intelligence (**KI**), 2023

124. 45<sup>th</sup> German Conference on Artificial Intelligence (**KI**), 2022
125. 35<sup>th</sup> AAAI Conference on Artificial Intelligence (**AAAI**), virtual, 2021
126. 30<sup>th</sup> International Joint Conference on Artificial Intelligence (**IJCAI**), 2021
127. 44<sup>th</sup> German Conference on Artificial Intelligence (**KI**), virtual, 2021
128. 29<sup>th</sup> International Joint Conference on Artificial Intelligence (**IJCAI**), virtual, 2020
129. 34<sup>th</sup> AAAI Conference on Artificial Intelligence (**AAAI**), New York, USA, 2020
130. 43<sup>rd</sup> German Conference on Artificial Intelligence (**KI**), virtual, 2020
131. 4<sup>th</sup> International Joint Conference on Rules and Reasoning (**RuleML+RR**), virtual, 2020
132. 28<sup>th</sup> International Joint Conference on Artificial Intelligence (**IJCAI**), Macao, China, 2019
133. 3<sup>rd</sup> International Joint Conference on Rules and Reasoning (**RuleML+RR**), Bolzano, Italy, 2019
134. 42<sup>nd</sup> German Conference on Artificial Intelligence (**KI**), Kassel, Germany, 2019
135. 2<sup>nd</sup> International Joint Conference on Rules and Reasoning (**RuleML+RR**), Luxembourg, 2018
136. 41<sup>st</sup> German Conference on Artificial Intelligence (**KI**), Berlin, Germany, 2018
137. 27<sup>th</sup> International Joint Conference on Artificial Intelligence and the 23<sup>rd</sup> European Conference on Artificial Intelligence (**IJCAI-ECAI**), Stockholm, Sweden, 2018
138. 29<sup>th</sup> AAAI Conference on Artificial Intelligence (**AAAI**), Austin (TX), USA, 2015
139. 6<sup>th</sup> IASTED International Conference on Computational Intelligence (**CI**), Innsbruck, Austria, 2015
140. 13<sup>th</sup> International IASTED Conference on Artificial Intelligence and Applications (**AIA**), Innsbruck, Austria, 2014
141. International Joint Conference on Artificial Intelligence (**IJCAI**), Barcelona, Spain, 2011. *Senior Program Committee Member.*
142. 19<sup>th</sup> European Conference on Artificial Intelligence (**ECAI**), Lisbon, Portugal, 2010
143. 6<sup>th</sup> International Conference on Prestigious Applications of Intelligent Systems (**PAIS**), Lisbon, Portugal, 2010
144. 8<sup>th</sup> International IASTED Conference on Artificial Intelligence and Applications (**AIA**), Innsbruck, Austria, 2008
145. 30<sup>th</sup> German Conference on Artificial Intelligence (**KI**), 10 – 13 September, Osnabrück, Germany, 2007
146. 7<sup>th</sup> International IASTED Conference on Artificial Intelligence and Applications (**AIA**), Innsbruck, Austria, 2007
147. 6<sup>th</sup> International IASTED Conference on Artificial Intelligence and Applications (**AIA**), 13 - 16 February, Innsbruck, Austria, 2006
148. 22<sup>nd</sup> International IASTED Conference on Artificial Intelligence and Applications (**AIA**), 16 - 18 February, Innsbruck, Austria, 2004
149. 3<sup>rd</sup> Intl. Conference on Knowledge Systems for Coalition Operations (**KSCO**), Pensacola, Oct 26-28, 2004, USA, 2004
150. 15<sup>th</sup> European Conference on Artificial Intelligence (**ECAI**), Lyon, France, 2002

## Information Systems, Web Technologies

151. 21<sup>st</sup> International Conference on Web Information Systems and Technologies (**WebIST**), 2025
152. 30<sup>th</sup> International Conference on Cooperative Information Systems (**CoopIS**), 2024
153. 20<sup>th</sup> International Conference on Web Information Systems and Technologies (**WebIST**), 2024
154. 19<sup>th</sup> International Conference on Web Information Systems and Technologies (**WebIST**), 2023
155. 29<sup>th</sup> International Conference on Cooperative Information Systems (**CoopIS**), 2023
156. 18<sup>th</sup> International Conference on Web Information Systems and Technologies (**WebIST**), 2022
157. 28<sup>th</sup> International Conference on Cooperative Information Systems (**CoopIS**), 2022
158. 17<sup>th</sup> International Conference on Web Information Systems and Technologies (**WebIST**), virtual, 2021
159. 26<sup>th</sup> International Conference on Cooperative Information Systems (**CoopIS**), Rhodes, Greece, 2020
160. 16<sup>th</sup> International Conference on Web Information Systems and Technologies (**WebIST**), virtual, 2020
161. 12<sup>th</sup> International Conference on Computational Collective Intelligence (**ICCCI**), Da Nang, Vietnam, 2020
162. 25<sup>th</sup> International Symposium on Methodologies for Intelligent Systems (**ISMIS**), virtual, 2020
163. 25<sup>th</sup> International Conference on Cooperative Information Systems (**CoopIS**), Rhodes, Greece, 2019
164. 15<sup>th</sup> International Conference on Web Information Systems and Technologies (**WebIST**), Vienna, Austria, 2019
165. 15<sup>th</sup> International Conference on Beyond Database Architectures and Structures (**BDAS**), Poland, 2019
166. International World Wide Web Conference (**Web**), Lyon, France, 2018
167. 24<sup>th</sup> International Conference on Cooperative Information Systems (**CoopIS**), Valetta, Malta, 2018
168. 14<sup>th</sup> International Conference on Web Information Systems and Technologies (**WebIST**), Vienna, Austria, 2018
169. 23<sup>rd</sup> International Conference on Cooperative Information Systems (**CoopIS**), Rhodes, Greece, 2017
170. 23<sup>rd</sup> International Symposium on Methodologies for Intelligent Systems (**ISMIS**), Warsaw, Poland, 2017
171. 13<sup>th</sup> International Conference on Web Information Systems and Technologies (**WebIST**), Porto, Portugal, 2017

172. 13<sup>th</sup> International Conference on Beyond Database Architectures and Structures (**BDAS**), Poland, 2017
173. 22<sup>nd</sup> International Conference on Cooperative Information Systems (**CoopIS**), Rhodes, Greece, 2016
174. 12<sup>th</sup> International Conference on Web Information Systems and Technologies (**WebIST**), Rome, Italy 2016
175. 21<sup>st</sup> International Conference on Cooperative Information Systems (**CoopIS**), Rhodes, Greece, 2015
176. 11<sup>th</sup> International Conference on Web Information Systems and Technologies (**WebIST**), Lisbon, Portugal, 2015
177. 6<sup>th</sup> International Conference on Emerging Ubiquitous Systems and Pervasive Networks (**EUSPN**), Berlin, Germany, 2015
178. 8<sup>th</sup> International Conference on Mobile and Internet Services in Ubiquitous Computing (**IMIS**), Birmingham, UK, 2014
179. 10<sup>th</sup> International Conference on Web Information Systems and Technologies (**WebIST**), Barcelona, Spain, 2014
180. 10<sup>th</sup> IEEE International Conference on e-Business Engineering (**ICEB**), Coventry, UK, 2013. Agents for E-Business Track.
181. 10<sup>th</sup> International Conference on Mobile Web Information Systems (**MobiWIS**), Cyprus, 2013
182. 9<sup>th</sup> International Conference on Web Information Systems and Technologies (**WebIST**), Aachen, Germany, 2013
183. 8<sup>th</sup> International Conference on Web Information Systems and Technologies (**WebIST**), Porto, Portugal, 2012
184. 1<sup>st</sup> International Conference on Ambient Computing, Applications, Services and Technologies (**AMBIENT**), Barcelona, 2011
185. 25<sup>th</sup> International IEEE Conference on Advanced Information Networking and Applications (**AINA**), Singapore, 2011
186. 18<sup>th</sup> International World Wide Web Conference (**WWW**), Madrid, Spain, 2009
187. 23<sup>rd</sup> IEEE International Conference on Advanced Information Networking and Application (**AINA**), Bradford, UK, 2009
188. 10<sup>th</sup> International Conference on Electronic Commerce (**ICEC**), Innsbruck, Austria, 2008
189. German Conference „Anwendungskonzepte und Vorgehensweise für dezentrale Informationssysteme“ as part of the German multi-conference on business informatics **MKWI**, Munich, Germany, 2008
190. IEEE International Conference on Adaptive Business Systems (**ICABS**), China, 2007
191. 8<sup>th</sup> International ACM Conference on Electronic Commerce (**EC**), San Diego, USA, 2007
192. International IEEE Conference on IP and Web Applications (**ICIW**), Guadeloupe, 2006
193. 3<sup>rd</sup> International Conference on Service-Oriented Computing (**ICSOC**), Amsterdam, The Netherlands, December 2005

194. 1<sup>st</sup> Intl. Conference on Mobile and Ubiquitous Systems: Networking and Services (**Mobiquitous**), August 22-25, 2004, Boston, Massachusetts, USA
195. 12<sup>th</sup> Intl. Conference on the World Wide Web (**WWW**), Budapest, Hungary, May 2003
196. 9<sup>th</sup> Intl. Conference on Database Systems for Advanced Applications (**DASFAA**), Kyoto, Japan, 2003.
197. 3<sup>rd</sup> Intl. Conference on Web Information Systems Engineering (**WISE**), Singapore, 2002
198. 11<sup>th</sup> Intl. Conference on the Worldwide Web (**WWW**), Hawaii, USA, 2002
199. 2<sup>nd</sup> Intl. Conference on Electronic Commerce and Web (**EC&Web**), London, UK, 2000.
200. Intl. Conference on Electronic Commerce & Web (**EC&Web**), Munich, Germany, 2001.
201. 2<sup>nd</sup> Intl. Conference on Web Information Systems Engineering (**WISE**), Kyoto, Japan, 2001
202. Intl. Conference on Advances in Database and Information Systems (**ADBIS**), Vilnius, Lithuania, 2001.
203. 4<sup>th</sup> IFCIS Conference on Cooperative Information Systems (**CoopIS**), Edinburgh, Scotland, 1999.
204. 5<sup>th</sup> Intl. Conference on Information Systems, Analysis and Synthesis (**ISAS**), Orlando, USA, 1999
205. 3<sup>rd</sup> IFCIS Conference on Cooperative Information Systems (**CoopIS**), New York, USA, 1998
206. Intl. Conference ETCE-96 Energy Week, Houston, TX/USA, 1996.

### Other Topics

207. 7<sup>th</sup> International Conference on Agreement Technologies (**AT**), Thessaloniki, Greece, 2020
208. 5<sup>th</sup> International Conference on Agreement Technologies (**AT**), Bergen, Norway, 2018
209. 4<sup>th</sup> International Conference on Behavioral, Economic and Socio-Cultural Computing (**BESC**), Krakow, Poland, 2017
210. 5<sup>th</sup> International Conference on Agreement Technologies (**AT**), Evry, France, 2017
211. International Conference on Behavioral, Economic and Socio-Cultural Computing (**BESC**), Durham, USA, 2016
212. 6<sup>th</sup> International Conference on Emerging Ubiquitous Systems and Pervasive Networks (**EUSPN**), Berlin, Germany, 2015
213. International Conference on Behavioral, Economic and Socio-Cultural Computing (**BESC**), Nanjing, China, 2015
214. 3<sup>rd</sup> International Conference on Agreement Technologies (**AT**), Athens, Greece, 2015
215. International Congress on Smart Energy Research in Europe (**SE**), Essen, Germany, 2015

- 216. 36<sup>th</sup> Annual Conference of the European Association for Computer Graphics (**EuroGraphics**) STAR, 2015
- 217. Smart Energy Research Conference (**SE**) @ e-World energy & water Congress, Essen, Germany, 2015
- 218. Smart Energy Research Conference (**SE**) @ e-World energy & water Congress, Essen, Germany, 2014
- 219. 9<sup>th</sup> ACM Symposium on Applied Computing (**SAC**), Technical Track on Coordination Languages, Models, and Applications, Seoul, Korea, 2007
- 220. 34<sup>th</sup> Intl. Conference on System Sciences (**HICSS**), Maui, 2001.
- 221. 4<sup>th</sup> Intl. Conference of Systemics, Cybernetics and Informatics (**SCI**), USA, 2000.

## 10.2 Workshops

### Semantic Technologies

- 222. 7<sup>th</sup> International Workshop on Linked Web Data Management (**LWDM**), Venice, Italy, 2017
- 223. 6<sup>th</sup> International Workshop on Linked Web Data Management (**LWDM**), Bordeaux, France, 2016
- 224. 5<sup>th</sup> International Workshop on Linked Web Data Management (**LWDM**), Brussels, Belgium, 2015
- 225. 2<sup>nd</sup> International Workshop on Social News on the Web (**SNOW**) @ WWW, Seoul, Korea, 2014
- 226. 4<sup>th</sup> International Workshop on Linked Web Data Management (**LWDM**) @ EDBT, Athens, Greece, 2014
- 227. 6<sup>th</sup> International Workshop on Semantic Web Information Management (**SWIM**), USA, 2014
- 228. 3<sup>rd</sup> International Workshop on Linked Web Data Management (**LWDM**) @ 15<sup>th</sup> Extended Database Technology Conference (EDBT), Genoa, Italy, 2013
- 229. 3<sup>rd</sup> Workshop on the use of Semantic Web Technology for Mobile and Ubiquitous Applications (**SWUMA**), @ ISWC, Boston, USA, 2012.
- 230. 2<sup>nd</sup> International Workshop on Linked Web Data Management (**LWDM**) @ 15<sup>th</sup> Extended Database Technology Conference (EDBT), Berlin, Germany, 2012
- 231. International Workshop on Evaluation of Semantic Technologies (**IWEST**) @ ISWC, Shanghai, China, 2010
- 232. 1<sup>st</sup> International Workshop on Linked Web Data Management (**LWDM**) @ 14<sup>th</sup> Extended Database Technology Conference (EDBT), Uppsala, Sweden, 2011
- 233. 2<sup>nd</sup> AI Mashup Challenge (**AI-mashup**) @ ESWC, Heraklion, Greece, 2010.
- 234. 3<sup>rd</sup> International Workshops on Service Matchmaking and Resource Retrieval in the Semantic Web (**SMR2**), Washington DC, USA, 2009
- 235. 2<sup>nd</sup> International Workshops on Service Matchmaking and Resource Retrieval in the Semantic Web (**SMR2**), Karlsruhe, Germany, 2008
- 236. Intl. Symposium on Rule Interchange and Applications (**RuleML**), Orlando, USA, 2007.



237. 1<sup>st</sup> Intl. IEEE/ACM Workshop on Semantic Matchmaking and Resource Retrieval (**SMR**), at VLDB Conference, Seoul, Korea, September 2006
238. 2<sup>nd</sup> Intl. Workshop on the Use of Semantic Web Technologies for Ubiquitous and Mobile Applications (**SWUMA**), Trento, Italy, 2006
239. 5<sup>th</sup> Intl. DEXA Workshop on Web Semantics (**Webs**), Krakow, Poland, 2006.
240. 4<sup>th</sup> Intl. Workshop on Web Semantics (**Webs**) at 16th Intl. Conference on Database and Expert Systems (DEXA), Copenhagen, Denmark, August 2005.
241. AAAI Spring Symposium on Semantic Web Services, Stanford, USA, March 2004.
242. 1<sup>st</sup> Intl. Workshop on Semantic Web Technology for Mobile and Ubiquitous Applications @ ISWC, Hiroshima, Japan, 2004.
243. Intl. Workshop „XML-Technologien für das Semantic Web“ (**XSW**), Berlin, Germany, October 2003

### **Agent-Based Computing and AI**

244. International Workshop on Multi-agent based Applications for Energy Markets, Smart Grids and Sustainable Energy Systems (**MASGES**) @PAAMS conference, 2021
245. International Workshop on Multi-agent based Applications for Energy Markets, Smart Grids and Sustainable Energy Systems (**MASGES**) @PAAMS conference, 2020
246. International Workshop on Hypermedia Agents (**HyperAgents**) @Web Conference, San Francisco, USA, 2019
247. 7<sup>th</sup> International Workshop on Smart Energy Networks & Multi Agent Systems (**SEN-MAS**), Leipzig, Germany, 2019.
248. International Workshop on Multi-agent based Applications for Energy Markets, Smart Grids and Sustainable Energy Systems (**MASGES**) @PAAMS conference, 2019
249. International Workshop on Multi-agent based Applications for Smart Grids and Sustainable Energy Systems (**MASGES**) @PAAMS conference, 2018
250. 1<sup>st</sup> Workshop on Sustainable Energy Systems, Smart Infrastructures, and Smart Environments (**SESSISE**), Posen, Poland, 2017
251. International Workshop on Multi-agent based Applications for Smart Grids and Sustainable Energy Systems (**MASGES**) @PAAMS conference, 2017
252. 5<sup>th</sup> International Workshop on Artificial Intelligence Techniques for Power Systems and Energy Markets (**IATEM**), Porto, Portugal, 2016
253. 4<sup>th</sup> International Workshop on Artificial Intelligence Techniques for Power Systems and Energy Markets (**IATEM**), Valencia, Spain, 2015
254. International Workshop on Multi-agent based Applications for Smart Grids and Sustainable Energy Systems (**MASGES**) @PAAMS conference, Valencia, Spain, 2015
255. 4<sup>th</sup> International Workshop on Smart Energy Networks & Multi Agent Systems (**SEN-MAS**), Lodz, Poland, 2015.
256. 3<sup>rd</sup> International Workshop on Smart Energy Networks & Multi Agent Systems (**SEN-MAS**), Warsaw, Poland, 2014.
257. International Workshop on Multi-agent based Applications for Smart Grids and Sustainable Energy Systems (**MASGES**) @PAAMS conference, Valencia, Spain, 2014

258. International Workshop on Information Sharing in Large-Scale Multi-Agent Systems (**ISLMAS**) @ AAMAS conference, 2013
259. 2<sup>nd</sup> International Workshop on Smart Energy Networks & Multi Agent Systems (**SEN-MAS**), Koblenz, Germany, 2013
260. International Workshop on Multi-agent based Applications for Sustainable Energy Systems (**MASSSES**) @PAAMS conference, Valencia, Spain, 2013
261. 2<sup>nd</sup> International Workshop on Intelligent Agent Technology, Power Systems and Energy Markets (**IATEM**), @24<sup>th</sup> DEXA conference, Prague, Czech Republic, 2013.
262. 1<sup>st</sup> International Workshop on Intelligent Agent Technology, Power Systems and Energy Markets (**IATEM**), @23<sup>rd</sup> DEXA conference, Vienna, Austria, 2012.
263. 1<sup>st</sup> International Workshop on Smart Energy Networks & Multi Agent Systems (**SEN-MAS**), Wroclaw, Poland, 2012.
264. 4<sup>th</sup> International Workshop on Agents and Data Mining Interaction (**ADMI**), Toronto, Canada, 2010
265. 3<sup>rd</sup> International Workshop on Agents and Data Mining Interaction (**ADMI**), Budapest, Hungary, 2009
266. 10<sup>th</sup> International Workshop on Engineering Societies in the Agents' World (**ESAW**), Utrecht, The Netherlands, 2009
267. 2<sup>nd</sup> International Workshop on Autonomous Intelligent Systems: Agents and Data Mining (**AIS-ADM**), St Petersburg, Russia, 2007
268. 4<sup>th</sup> European Workshop on Multiagent Systems (**EUMAS**), Lisbon, Portugal, 2006
269. 1<sup>st</sup> International Workshop on Privacy and Security in Agent-Based Collaborative Environments (**PSACE**) at AAMAS 2006 Conference, Japan, 2006
270. 1<sup>st</sup> International Workshop on Autonomous Intelligent Systems: Agents and Data Mining (**AIS-ADM**), St Petersburg, Russia, 2005
271. 3<sup>rd</sup> European Workshop on Multiagent Systems (**EUMAS**), Brussels, 2005
272. 4<sup>th</sup> International Workshop on Agents and P2P Computing (**AP2P**) @ AAMAS Conference, Utrecht, The Netherlands, 2005
273. 1<sup>st</sup> AAAI Fall Symposium on Agents and the Semantic Web (**ASW**), Arlington, USA, November 2005.
274. 5<sup>th</sup> International Workshop on Agent-Based Simulation (**ABS**), Portugal, 2004
275. 4<sup>th</sup> International Symposium „From Agent Theory to Agent Implementation“ (**AT2AI**), @ 17th European Cybernetics and Systems Research (EMCSR-2004), Vienna, 2004
276. 3<sup>rd</sup> International Workshop on Agents and P2P Computing (**AP2P**) @ AAMAS Conference, New York, USA, 2004
277. 1<sup>st</sup> European Workshop on Multiagent Systems (**EUMAS**), Oxford, UK, 2003
278. 1<sup>st</sup> International Workshop on Autonomy (**Autonomy**) @AAMAS Conference 2003.
279. 3<sup>rd</sup> International IEEE/ACM Workshop on Agent-based cluster and grid computing (**AgentGrid**), Tokyo, Japan, 2003.
280. 1<sup>st</sup> International Workshop on Teamwork and Coalition Formation @ AAMAS Conference, Bologna, Italy, 2002.
281. 2<sup>nd</sup> International Workshop on Ontologies in Agent Systems (**OAS**) @ AAMAS Conference, Bologna, Italy, 2002.

282. 2<sup>nd</sup> International Workshop on Challenges in Open Agent Environments, @ AAMAS Conference 2002, Bologna, Italy, 2002
283. 10<sup>th</sup> International Workshop on Multi-Agent Systems (**MAAMAW**), Annecy, France, 2001.
284. 2<sup>nd</sup> International Workshop on Infrastructure for Scalable Multi-Agent Systems @ AAMAS Conference, Montreal, Canada, 2001.
285. International Workshop on Ontologies in Agent Systems @ AAMAS Conference, Montreal, Canada, 2001
286. International Workshop on Internet Bots: Systems and Applications (**INBOSA**) @ DEXA Conference, Munich, Germany, 2001.
287. International Workshop on Engineering Societies in the Agents' World (**ESAW**), Prague, 2001
288. International ICSC Symposium on Multi-Agents and Mobile Agents in Virtual Organizations and E-Commerce (**MAMA**), Australia, 2000.
289. International Workshop on Engineering Societies in the Agents' World (**ESAW**) @ ECAI Conference, Berlin, Germany, 2000.
290. International Workshop on Agent-Based Information Systems (**ABIS**) @ DEXA Conference, Greenwich, UK, 2000.
291. 2<sup>nd</sup> German Joint Meeting on DAI, Databases and Information Retrieval (**ADI**), Rostock, Germany, 1999.
292. 1<sup>st</sup> International Workshop on Agent Communication Languages (**ACL**) @ IJCAI Conference, Stockholm, Sweden, 1999.
293. 1<sup>st</sup> International Symposium 'From Agent Theory to Agent Implementation' (**AT2AI**) @ European Conference on Cybernetics and Systems Research, Vienna, 1998.
294. Workshop on Intelligent Agents in Information and Process Management @ 22<sup>nd</sup> German Conference on Artificial Intelligence (**KI**) of German Computer Society, Bremen, 1998.

### **Web Technologies, Service-Oriented Computing**

295. International Workshop on Quality of Service in Smart Cities (**QoS-SC**), Pittsburgh, USA, 2016
296. AAAI Spring Symposium on Intelligent Web Services Meet Social Computing (**AAAI SS**), Stanford, California, 2012
297. International Workshop on Challenges in Mobile Service Computing (**CMSC**) @ ECOWS Conference, Lugano, Switzerland, 2011
298. 9th International Workshop on Service-Oriented Computing: Agents, Semantics and Engineering (**SOCASE**) @ FedCSIS Conference, Szczecin/Stettin, Poland, 2011
299. 8th International Workshop on Service-Oriented Computing: Agents, Semantics and Engineering (**SOCASE**) @ AAMAS, Toronto, Canada, 2010.
300. International IEEE Symposium on Applications and the Internet (**SAINT**), USA, 2001.
301. International Workshop on E-Business & Intelligent Web @ IJCAI 2001, Seattle, USA, 2001

## Information Systems, Data Mining, P2P and Mobile Computing

- 302. International Workshop on Modelle in der KI (**MOD**), Vienna, Austria, 2020
- 303. 3<sup>rd</sup> International Workshop on Mining Ubiquitous and Social Environments (**MUSE**), @16<sup>th</sup> ECML conference, Bristol, UK, 2012.
- 304. 5th Intl Workshop on Databases, Information Systems and P2P Computing (**DBISP2P**) @ VLDB Conference, Vienna, Austria, 2007
- 305. 4th Intl Workshop on Databases, Information Systems and P2P Computing (**DBISP2P**) @ VLDB Conference, Seoul, South Korea, 2006
- 306. 3rd Intl Workshop on Databases, Information Systems and P2P Computing (**DBISP2P**) @ VLDB conference, Trondheim, Norway, 2005
- 307. 8th International Workshop on High Performance and Distributed Data Mining (**HPDM**) @ 5th Intl. SIAM Conference on Data Mining, Newport CA, USA, 2005.
- 308. 1st International Workshop on Peer-To-Peer Knowledge Management (**P2PKM**) @ 1st Int. Conference on Mobiquitous Computing, 2004
- 309. 1st International Workshop on Peer-To-Peer Computing and Databases (**P2P&DB**) @ EDBT Conference, Heraklion, Greece, 2004.
- 310. International Workshop on Hybrid Intelligent Systems for Data Mining @ IEEE International Conference on Data Mining (**ICDM**), San Jose, USA, 2001.
- 311. International Workshop on Intelligent Information Integration (**I3**) @ IJCAI Conference, Stockholm, Sweden, 1999.

## Others

- 312. 1<sup>st</sup> Intl Workshop on Theory and Practice of Open Computational Systems (**TAPOCS**), 2003
- 313. 12<sup>th</sup> International IEEE Workshop on Enabling Technologies: Infrastructure for Collaborative Enterprises (**WETICE**), Linz, Austria, 2003
- 314. 7<sup>th</sup> IEEE Intl Workshop on Enabling Technologies: Infrastructure for Collaborative Enterprises (**WETICE**), Stanford, USA, 1998
- 315. **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 (**241**) are listed in inverted chronological order and sorted in the categories of books (30), special journal issues (4), journal papers (42), book chapters (18), conference (106) and workshop papers (37), and technical reports (4).

### 11.1 Books

#### *Anthologies*

- [A04-05] Calisti, M.; Unland, R.; Klusch, M. (2005) Eds.: Software Agent-based Applications, Platforms 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.; Klauk, 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

- [S04-24] Klusch, M., Lässig, J., Wilhelm, F.K. (2024) (Guest editors), Quantum Artificial Intelligence, *Künstliche Intelligenz*, 4/24, Springer.
- [S03-05] Klusch, M.; Ossowski, S.; Unland, R. (Guest editors), *Engineering Artificial 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

- [J42-25] Sinha, A., Macaluso, A., & Klusch, M. (2025). Nav-Q: Quantum Deep Reinforcement Learning for Collision-Free Navigation of Self-Driving Cars. *Quantum Machine Intelligence*, 7. Springer.
- [J41-24] Wanner, L., et al. (2024). Support of Migrant Reception, Integration and Social Inclusion by Intelligent Technologies. *Information*. MDPI

- [J40-24] Klusch, M., Lässig, J., Müssig, D., Macaluso, A., & Wilhelm, F.K. (2024): Quantum Artificial Intelligence: A Brief Survey. *Künstliche Intelligenz*, 4/24, Springer. Also: arxiv:2408.10726
- [J39-24] Klusch, M., Lässig, J. & Wilhelm, F.K. (2024). Quantum Computing and AI. *Künstliche Intelligenz*, 4/24, Editorial. Springer.
- [J38-24] Klusch, M., Lässig, J. & Wilhelm, F.K. (2024). Quantum Technologies and AI - Interview with Tommaso Calarco. *Künstliche Intelligenz*, 4/24, Springer.
- [J37-24] Stollenwerk, T. et al. (2024): Q(AI)2: Quantum Artificial Intelligence for the Automotive Industry. *Künstliche Intelligenz*, 4/24, Springer.
- [J36-24] Venkatesh, S.M., Macaluso, A., Nuske, M., Klusch, M., & Dengel, A. (2024): Q-Seg: Quantum Annealing-based Unsupervised Image Segmentation. *IEEE Computer Graphics and Applications*. IEEE. Also: arXiv:2311.12912v1 (2023)
- [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. *AI 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 Artificial 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.) CASCOS - 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.) CASCOS - 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.) CASCOS - 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.) CASCOS - 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.) CASCOS - 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, Chichester, 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

- [C106-23] Venkatesh, S., Macaluso, A., Nuske, M., Klusch, M. & Dengel, A. (2024): Qubit-Efficient Variational Quantum Algorithms for Image Segmentation. IEEE International Conference on Quantum Computing and Engineering (QCE24). IEEE.
- [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.
- [C97-21] Hell, L.; Sprenger, J.; Klusch, M.; Kobayashi, Y.; Mueller, C. (2021): Pedestrian Behavior in Japan and Germany: A Review. Proc. 32nd IEEE International Intelligent Vehicles Symposium (IV). IEEE.
- [C96-21] Muscholl, N.; Klusch, M.; Gebhard, P.; Schneeberger, T. (2021): EMIDAS: Explainable Social Interaction-Based Pedestrian Intention Detection Across Street. Proc. 36th ACM Symposium on Applied Computing (SAC), ACM
- [C95-20] Muscholl, N.; Poibrenski, A.; Klusch, M.; Gebhard, P. (2020): SIMP3: Social Interaction-Based Multi-Pedestrian Path Prediction By Self-Driving Cars. Proc. 10th IEEE International Symposium on Computational Intelligence in Vehicles and Transportation Systems (CIVTS), IEEE.
- [C94-20] Vozniak, I.; Klusch, M.; Antakli, A.; Mueller, C. (2020): InfoSalGAIL: Visual Attention-Empowered Imitation Learning of Pedestrian Behavior in Critical Traffic Scenarios. Proc. 12th IEEE International Conference on Neural Computation Theory and Applications (NCTA), IEEE.
- [C93-20] Poibrenski, A.; Klusch, M.; Vozniak, I.; Mueller, C. (2020): M2P3: Multimodal Multi-Pedestrian Path Prediction by Self-Driving Cars With Egocentric Vision. Proc. 35th ACM International Symposium on Applied Computing (SAC), ACM
- [C92-19] Nonnengart, A.; Klusch, M.; Mueller, C. (2019): CriSGen: Constraint-based Generation of Critical Scenarios for Autonomous Vehicles. Proc. International Workshop on Formal Methods for Autonomous Systems (FMAS), LNCS, Springer



- [C91-19] Pusse, F.; Klusch, M. (2019): Hybrid Online POMDP Planning and Deep Reinforcement Learning for Safer Self-Driving Cars. Proc. 30th IEEE International Intelligent Vehicles Symposium (IV), IEEE.
- [C90-17] Mathieu, C.; Klusch, M.; Glimm, B. (2017): QSMat: Query-Based Materialization for Efficient RDF Stream Processing. Proc. 8th International Conference on Knowledge Engineering and Semantic Web (KESW), CCIS 786, Springer.
- [C89-17] Mazzola, L.; Kapahnke, P.; Klusch, M. (2017): Pattern-Based Semantic Composition of Optimal Process Service Plans with ODERU. Proc. 19th ACM International Conference on Information Integration and Web-based Applications and Services (iiWAS); Salzburg, Austria, ACM.
- [C88-17] Da Silva, J.; Oliveira, G.; Lodi, S.; Klusch, M. (2017): Clustering Distributed Short Time Series with Dense Patterns. Proc. 16th IEEE International Conference on Machine Learning and Applications (ICMLA), IEEE.
- [C87-17] Mazzola, L.; Kapahnke, P.; Klusch, M. (2017): ODERU: Optimisation of Semantic Service-Based Processes in Manufacturing. Proc. 8th International Conference on Knowledge Engineering and Semantic Web (KESW), LNCS, Springer.
- [C86-17] Nedwed, F.; Zinnikus, I.; Nukhayev, M.; Klusch, M.; Mazzola, L. (2017): shopST: Flexible Job-Shop Scheduling with Agent-Based Simulated Trading. Proc. 15th German Conference on Multiagent System Technologies (MATES); Leipzig, Germany; LNAI 10413, Springer.
- [C85-17] Zinnikus, I.; Antakli, A.; Kapahnke, P.; Klusch, M.; Krauss, C.; Nonnengart, A.; Slusaliek, P. (2017): Integrated Semantic Fault Analysis and Worker Support for Cyber-Physical Production Systems. Proc. 19th IEEE International Conference on Business Informatics (CBI), IEEE.
- [C84-17] Mazzola, L.; Kapahnke, P.; Waibel, P.; Hochreiner, C.; Klusch, M. (2017): FCE4BPMN: On-demand QoS-based Optimised Process Model Execution in the Cloud. Proc. 23rd IEEE International Technology Management Conference (ITMC), IEEE.
- [C83-16] Mazzola, L.; Kapahnke, P.; Vujic, M.; Klusch, M. (2016): CDM-Core: A Manufacturing Domain Ontology in OWL2 for Production and Maintenance. Proc. 8th International Conference on Knowledge Engineering and Ontology Development (KEOD), Porto, Portugal.

- [C82-16] Silva, J.C., Klusch, M.; Lodi, S. (2016): Privacy-Awareness of Distributed Data Clustering Algorithms Revisited. Proc. 15th International Symposium on Intelligent Data Analysis (IDA), Stockholm, Sweden; LNCS, Springer. [A]
- [C81-16] Antakli, A.; Zinnikus, I.; Klusch, M. (2016): ASP-Driven BDI-Planning Agents in Virtual 3D Environments. Proc. 14th German Conference on Multiagent System Technologies (MATES), Klagenfurt, Austria; LNAI 9872, Springer. [B]
- [C80-15] Kahl, G.; Klusch, M.; Zinnikus, I.; Schimmelpfennig, J.; Zapp, M. (2015): ADIGE: Semantic Business Process Management for Smart Retail Environments. Proc. 17th ACM International Conference on Information Integration and Web-based Applications and Services (iiWAS), Brussels, Belgium; ACM.
- [C79-15] Klusch, M.; Meshram, A.; Schuetze, A.; Helwig, N. (2015): ICM-Hydraulic: Semantics-Empowered Condition Monitoring of Hydraulic Machines. Proc. 11th ACM International Conference on Semantic Systems (SEMANTiCS); Vienna, Austria; ACM.
- [C78-15] Mathieu, C.; Klusch, M. (2015): Accelerated Steiner Tree Problem Solving on GPU with CUDA. Proc. 15th International Conference on Algorithms and Architectures for Parallel Processing (ICA3PP); Springer; [B]
- [C77-15] Degenbaeva, C.; Klusch, M. (2015): Critical Node Detection Problem Solving on GPU and in the Cloud. Proc. 17th IEEE International Conference on High-Performance Computing and Communications; New York, USA. [B]
- [C76-15] Cao, X.; Kapahnke, P.; Klusch, M. (2015): SPSC: Efficient Composition of Semantic Services in Unstructured P2P Networks. Proc. 12<sup>th</sup> Extended Semantic Web Conference (ESWC); LNCS, Springer. [A]
- [C75-14] Klusch, M.; Kapahnke, P.; Cao, X.; Rainer, B.; Timmerer, C.; Mangold, S. (2014): MyMedia: Mobile Semantic Peer-to-Peer Video Search and Live Streaming. 11<sup>th</sup> ACM International Conference on Mobile and Ubiquitous Systems (MobiQuitous); London, UK; ACM Press. [A]
- [C74-14] Kompatsiaris, I.; Diplaris, S.; Corney, D.; Heise, N.; Klusch, M.; Jaho, E.; Geurts, J.; Liu, Y.; Petkos, G.; Papadopoulos, S.; Sarris, N.; Goker, A.; Spangenberg, J. (2014): Real-Time Social Media Indexing and Search. Proc. International Broadcasting Convention (IBC), Amsterdam, Netherlands.
- [C73-14] Schulte, S.; Hoenisch, P.; Hochreiner, C.; Dustdar, S.; Klusch, M.; Schuller, D. (2014): Towards Process Support for Cloud Manufacturing. Proc. 18th IEEE Intern. Conference on Enterprise Distributed Object Computing (EDOC), Ulm, Germany. [B]

- [C72-14] Klusch, M.; Meshram, A.; Kapahnke, P.; Schuetze, A. (2014): ICM-Wind: Semantics-Empowered Fluid Condition Monitoring of Wind Turbines. Proc. 29th ACM Symposium on Applied Computing (SAC); Korea; ACM Press. [B]
- [C71-14] Rainer, B.; Timmerer, C.; Kapahnke, P.; Klusch, M. (2014): Real-time Multimedia Streaming in Unstructured Peer-to-Peer Networks. Proc. 11th IEEE Consumer Communications and Networking Conference (CCNC); USA; IEEE Press. [B]
- [C70-13] Zinnikus, I.; Spieldenner, T.; Cao, X.; Klusch, M.; Krauss, C.; Nonnengart, A.; Slusallek, P. (2013): A Collaborative Virtual Workspace for Factory Configuration and Evaluation. Proc. 9th IEEE International Conference on Collaborative Computing: Networking, Applications and Worksharing (CollaborateCom); Austin TX, USA; IEEE Press. **2<sup>nd</sup> Best Paper Award**
- [C69-13] Mihailescu, R.C.; Klusch, M.; Ossowski, S. (2013): eCOOP: Privacy-Preserving Dynamic Coalition Formation for Power Regulation in the Smart Grid. Proc. 2<sup>nd</sup> International Conference on Agreement Technologies; Beijing, China; Springer
- [C68-13] Cao, X.; Klusch, M. (2013): S2P2P: Semantic Search in Unstructured Peer-to-Peer Networks. Proc. 15th IEEE International Conference on High-Performance Computing and Communications (HPCC); IEEE Press. [B]
- [C67-13] Cao, X.; Klusch, M. (2013): Advanced Semantic Deep Search for 3D Scenes. Proc. 7th IEEE International Conference on Semantic Computing; Stanford CA, USA; IEEE Press.
- [C66-13] Guenel, A.; Meshram, A.; Bley, T.; Klusch, M. Schuetze, A. (2013): Statistical and Semantic Multisensor Data Evaluation for Fluid Condition Monitoring in Wind Turbines. Proc. 16th International Conference on Sensors and Measurement Technology (SENSOR). Nuremberg, Germany.
- [C65-13] Cao, X.; Klusch, M. (2013): iRep3D: Efficient Semantic 3D Scene Retrieval. Proc. 8<sup>th</sup> International Conference on Computer Vision Theory and Applications. Barcelona, Spain; ScitePress.
- [C64-12] Da Silva, J.C.; Oliveira, G.H.B.; Cortez, O.A.C.; Klusch, M. (2012): Density-based Pattern Discovery in Time Series. Brazilian Conference on Intelligent Systems; Proc. 21<sup>st</sup> Brazilian Symposium on Artificial Intelligence (SBIA). Parana, Brazil; LNAI, Springer.
- [C63-12] Cao, X.; Klusch, M. (2012): Dynamic Semantic Data Replication for K-Random Search in Peer-to-Peer Networks. Proc. 11th International IEEE Symposium on Network Computing and Applications. Cambridge, MA (USA); IEEE Press. [A]

- [C62-12] Diplaris, S.; Papadopoulos, S.; Kompatsiaris, I.; Goker, A.; Macfarlane, A.; Spangenberg, J.; Hacid, H.; Maknavicius, L.; Klusch, M. (2012): SocialSensor: Sensing User Generated Input for Improved Media Discovery and Experience. Proc. World Wide Web Conference (WWW), EU Projects Track, France. [A]
- [C61-12] Warwas, S.; Fischer, K.; Klusch, M.; Slusallek, P. (2012): Bochica: A Model-Driven Framework for Multi-Agent Systems. Proceedings of 4<sup>th</sup> International Conference on Agents and Artificial Intelligence (ICAART), Vilamoura, Portugal.
- [C60-11] Klusch, M.; Cao, X.; Kapahnke, P.; Warwas, S. (2011): Semantics and Agents for Intelligent Simulation and Collaboration in the 3D Internet. Proceedings of 7<sup>th</sup> International Conference on Semantics, Knowledge and Grids (SKG), IEEE
- [C59-11] Richter, J.; Klusch, M.; Kowalczyk, R. (2011): Monotonic Mixing of Decision Strategies for Agent-based Bargaining. Proceedings of 9<sup>th</sup> German Conference on Multiagent System Technologies (MATES), Berlin, Germany, Springer, LNCS. [B] **Best Paper Award**
- [C58-11] Warwas, S.; Klusch, M. (2011): Making Multiagent System Designs Reusable: A Model-driven Approach. Proceedings of IEEE International Conference on Intelligent Agent Technology (IAT), Lyon, France. IEEE CS Press.
- [C57-10] Kapahnke, P.; Liedtke, P.; Nesbigall, S.; Warwas, S.; Klusch, M. (2010): ISReal: An Open Platform for Semantic-Based 3D Simulations in the 3D Internet. Proceedings of 9<sup>th</sup> International Semantic Web Conference (ISWC), LNCS 6414, Springer. [A]
- [C56-10] Klusch, M.; Kapahnke, P. (2010): iSeM: Approximated Reasoning for Adaptive Hybrid Selection of Semantic Services. Proceedings of 4<sup>th</sup> IEEE International Conference on Semantic Computing (ICSC), USA. Invited Reprint of [C56-10].
- [C55-10] Klusch, M.; Kapahnke, P. (2010): iSeM: Approximated Reasoning for Adaptive Hybrid Selection of Semantic Services. Proceedings of 7<sup>th</sup> Extended Semantic Web Conference (ESWC), LNCS 6089, Springer. [A]
- [C54-10] Richter, J.; Klusch, M.; Kowalczyk, R. (2010): A Multistage Fuzzy Decision Approach for Modeling Adaptive Negotiation Strategies. Proceedings of 19<sup>th</sup> IEEE International Conference on Fuzzy Systems (FuzzIEEE), Spain. [A]
- [C53-10] Richter, J.; Klusch, M.; Kowalczyk, R. (2010): On Monotonic Mixed Tactics and Strategies for Bilateral Multi-Issue Negotiations. Proceedings of 9<sup>th</sup> International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS), Toronto, Canada. AAAI Press. [A\*]

- [C52-09] Nesbigall, S.; Warwas, S.; Kapahnke, P.; Schubotz, R.; Klusch, M.; Fischer, K.; Slusallek, P. (2009): Intelligent Agents for Semantic Simulated Realities – The ISReal Platform. Proceedings of International Conference on Agents and Artificial Intelligence (ICAART), Porto, Portugal.
- [C51-09] Richter, J.; Kowalczyk, R.; Klusch, M. (2009): Multistage Fuzzy Decision Making in Bilateral Negotiation with Finite Termination Times. Proceedings of 22<sup>nd</sup> Australasian Joint Conference on Artificial Intelligence (AI), Melbourne, Australia.
- [C50-09] Klusch, M.; Kapahnke, P.; Zinnikus, I. (2009): SAWSDL-MX2: A Machine-Learning Approach for Integrating Semantic Web Service Matchmaking Variants. Proceedings of IEEE 7<sup>th</sup> International Conference on Web Services (ICWS), Los Angeles, USA. [A]
- [C49-09] Klusch, M.; Kapahnke, P.; Zinnikus, I. (2009): Hybrid Adaptive Web Service Selection with SAWSDL-MX and WSDL Analyzer. Proceedings of 6<sup>th</sup> European Semantic Web Conference (ESWC), Greece, IOS Press. [A]
- [C48-08] Klusch, M.; Schubotz, R. (2008): Quantum Service Selection. Proceedings of IEEE/ACM International Conference on Intelligent Agent Technology (IAT), Sydney, Australia, IEEE CS Press. AR: 19%
- [C47-08] Klusch, M. (2008): Toward Quantum Matchmaker Agents. Proceedings of IEEE/ACM International Conference on Intelligent Agent Technology (IAT), Sydney, Australia, IEEE CS Press. AR: 19%
- [C46-08] Klusch, M.; Nesbigall, S.; Zinnikus, I. (2008): MDSM: A Model-Driven Approach to Semantic Service Selection for Collaborative Business Processes. Proceedings of IEEE/ACM International Conference on Web Intelligence (WI), Sydney, Australia, IEEE CS Press. AR: 19%
- [C45-08] Hahn, C.; Nesbigall, S.; Warwas, S.; Zinnikus, I.; Fischer, K.; Klusch, M. (2008): Model-Driven Approach to the Integration of Multiagent Systems and Semantic Web Services. Proceedings of International IEEE/ACM Conference on Intelligent Agent Technology (IAT), Sydney, Australia, AR 19%
- [C44-08] Klusch, M.; Kapahnke, P.; Kaufer, F. (2008): Evaluation of Hybrid WSML Service Retrieval with WSMO-MX. Proceedings of IEEE International Conference on Web Services (ICWS), Beijing, China, IEEE Press. [A]
- [C43-08] Klusch, M.; Fries, B. (2008): Hybrid Semantic Web Service Retrieval: A Case Study with OWLS-MX. Proceedings of the 2<sup>nd</sup> IEEE International Conference on Semantic Computing (ICSC), Santa Clara, USA, IEEE Press.

- [C42-08] Klusch, M.; Xing, Z. (2008): Deployed Semantic Services for the Common User of the Web: A Reality Check. Proceedings of the 2<sup>nd</sup> IEEE International Conference on Semantic Computing (ICSC), Santa Clara, USA, IEEE Press.
- [C41-07] Klusch, M.; Schubotz, R. (2007): Programming and Simulation of Quantum Search Agents. Proceedings of the IEEE International Conference on Systems, Man and Cybernetics (SMC), Montreal, Canada, IEEE Press.
- [C40-07] Da Silva, J.C.; Klusch, M. (2007): Privacy-Preserving Discovery of Frequent Patterns in Time Series. Proceedings of the 7<sup>th</sup> Industrial Conference on Data Mining (ICDM), Leipzig, Germany, Springer.
- [C39-07] Klusch, M.; Schubotz, R. (2007): Programming and Simulation of Quantum Search Agents. Proceedings of the 6<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems (AAMAS), Hawaii, USA. Short version of [C41-07] [A\*]
- [C38-06] Kaufer, F.; Klusch, M. (2006): WSMO-MX: A Logic Programming Based Hybrid Service Matchmaker. Proceedings of the 4<sup>th</sup> IEEE European Conference on Web Services (ECOWS), IEEE CS Press, Zurich, Switzerland
- [C37-06] Klusch, M.; Gerber, A. (2006): Fast Composition Planning of OWL-S Services and Application. Proceedings of the 4<sup>th</sup> IEEE European Conference on Web Services (ECOWS), IEEE CS Press, Zurich, Switzerland
- [C36-06] Basters, U.; Klusch, M. (2006): RS2D: Fast Adaptive Search for Semantic Web Services in Unstructured P2P Networks. Proceedings of the 5<sup>th</sup> International Semantic Web Conference (ISWC), Athens, USA, Springer. [A]
- [C35-06] Basters, U.; Klusch, M. (2006): Risk Driven Semantic P2P Service Retrieval. Proceedings of the 6<sup>th</sup> IEEE International Conference on P2P Computing (P2P 2006), Cambridge, UK, IEEE CS Press. [A]
- [C34-06] Hutter, D.; Klusch, M.; Volkamer, M. (2006): Information Flow Analysis Based Security Checking of Health Service Composition Plans. Proceedings of the 1<sup>st</sup> European Conference on eHealth, Fribourg, Switzerland.
- [C33-06] Bergenti, F.; Caceresz, C.; Fernandez, A.; Fröhlich, N.; Helin, H.; Keller, O.; Kinnunen, A.; Klusch, M.; Laamanen, H.; Lopez, A.; Ossowski, S.; Schumacher, M. (2006): Context-aware Service Coordination for Mobile e-Health Applications. Proceedings of the 1<sup>st</sup> European Conference on eHealth, Fribourg, Switzerland, GI Edition, Lecture Notes in Informatics.

- [C32-06] Lopes, A.; Costa, P.; Bergenti, F.; Klusch, M.; Blankenburg, B.; Möller, T.; Schuldt, H. (2006): Context-aware Secure Service Composition Planning and Execution on E-Health Environments. Proceedings of the 1<sup>st</sup> European Conference on eHealth, Fribourg, Switzerland, GI Edition, Lecture Notes in Informatics.
- [C31-06] Klusch, M.; Fries, B.; Sycara, K. (2006): Automated Semantic Web Service Discovery with OWLS-MX. Proceedings of the 5<sup>th</sup> International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS), Hakodate, Japan, ACM Press. [A\*] **Best Paper Award Finalist**
- [C30-05] Da Silva, J.C.; Klusch, M. (2005): Confidentiality Detection of Outliers in Time Series Data. Proceedings of the IEEE International Conference on Computational Intelligence for modelling, Control and Automation (CIMCA), Vienna, Austria, IEEE Computer Society Press.
- [C29-05] Blankenburg, B.; Klusch, M. (2005): BSCA-F: Efficient fuzzy valued stable coalition forming among agents. Proceedings of the IEEE International Conference on Intelligent Agent Technology (IAT), Compiègne, France, IEEE Computer Society Press.
- [C28-05] Blankenburg, B.; Klusch, M. (2005): BSCA-P: Privacy-Preserving Coalition Formation. Proceedings of the 3<sup>rd</sup> German Conference on Multi-Agent System Technologies (MATES), Koblenz, Germany, LNAI series, 3550, Springer. [B] **Best Paper Award**
- [C27-05] Da Silva, J.C.; Klusch, M. (2005): Inference on Distributed Data Clustering. Proceedings of the 5<sup>th</sup> Industrial Conference on Data Mining (ICDM), Leipzig, Germany, July 2005.
- [C26-05] Klusch, M. (2005): Coordination of Quantum Internet Agents. Proceedings of the 4<sup>th</sup> Intl. Conference on Autonomous Agents and Multiagent Systems (AAMAS), Utrecht, The Netherlands. [A\*]
- [C25-05] Blankenburg, B.; Ramchurn; Gopal; Jennings, N.; Klusch, M. (2005): Trusted Kernel-Based Coalition Formation. Proceedings of the 4<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems (AAMAS), Utrecht, The Netherlands. [A\*]
- [C24-04] Da Silva, J.C.; Klusch, M.; Lodi, S.; Moro, G.L. (2004): Inference attacks in peer-to-peer homogeneous data mining. Proceedings of the European Conference on Artificial Intelligence (ECAI), Valencia, Spain. [A\*]

- [C23-04] Blankenburg, B.; Klusch, M. (2004): On Safe Kernel Stable Coalition Forming Among Agents. Proceedings of the 3<sup>rd</sup> International Conference on Autonomous Agents and Multiagent Systems (AAMAS), New York, USA. [A\*]
- [C22-04] Klusch, M. (2004): Toward Intelligent Agents on Quantum Computers. Proceedings of the 3<sup>rd</sup> International Conference on Autonomous Agents and Multiagent Systems (AAMAS), NY, USA. [A\*]
- [C21-03] Klusch, M., Lodi, S., Moro, G-L. (2003): The Role of Agents in Distributed Data Mining: Issues and Benefits. Proceedings of the 2<sup>nd</sup> IEEE International Conference on Intelligent Agent Technology (IAT), Halifax, Canada.
- [C20-03] Klusch, M., Lodi, S., Moro, G-L. (2003): Distributed Clustering Based on Sampling Local Density Estimates. Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI), Acapulco, Mexico. [A\*]
- [C19-03] Blankenburg, B., Klusch, M., Shehory, O. (2003): Fuzzy Kernel-Stable Coalitions Between Rational Agents. Proceedings of the 2<sup>nd</sup> International Conference on Autonomous Agents and Multiagent Systems (AAMAS), Melbourne, Australia. [A\*]
- [C18-03] Gerber, A., Klusch, M. (2003): DCF-S: A Dynamic Coalition Formation Scheme for Rational Agents. Proceedings of the 2<sup>nd</sup> International Conference on Autonomous Agents and Multiagent Systems (AAMAS), Melbourne, Australia. [A\*]
- [C17-03] Klusch, M., Lodi, S., Moro, G-L. (2003): Issues of Agent-Based Distributed Data Mining. Proceedings of the 2<sup>nd</sup> International Conference on Autonomous Agents and Multiagent Systems (AAMAS), Melbourne, Australia. [A\*]
- [C16-02] Gerber, A., Russ, C., Klusch, M. (2002): An Agent-Based Approach for Integrating Logistics Services into a B2B Marketplace. Proceedings of the 3<sup>rd</sup> International Conference on Internet Computing (IC), Las Vegas, USA.
- [C15-02] Gerber, A., Kammenhuber, N., Klusch, M. (2002): CASA: A Distributed Holonic Multiagent Architecture for Timber Production. Proceedings of the 1<sup>st</sup> International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS), Bologna, Italy. [A\*]
- [C14-02] Klusch, M., Gerber, A. (2002): Issues of Dynamic Coalition Formation Among Rational Agents on the Internet. Proceedings of the 2<sup>nd</sup> International Conference on Knowledge Systems for Coalition Operations (KSCO), Toulouse, France.



- [C13-01] Klusch, M., Gerber, A. (2001): An agent-based mobile e-commerce service platform for forestry and agriculture. Proceedings of the 2<sup>nd</sup> Asia-Pacific Conference on Intelligent Agent Technology (IAT), Japan.
- [C12-01] Schillo, M.; H.-J. Bürckert; M. Klusch; K. Fischer (2001): Towards a Definition of Robustness for Market-Style Open Multi-Agent Systems. Proceedings of the 5<sup>th</sup> International Conference on Autonomous Agents, Montreal, Canada, ACM Press.
- [C11-01] Gerber, A., Russ, C., Klusch, M., Zinnikus, I. (2001): Holonic Agents for the Coordination of Supply Webs. Proceedings of the Intl. Conference on Autonomous Agents (Agents 2001), Montreal, Canada.
- [C10-01] Schillo, M., Bürkert, H.-J., Klusch, M., Fischer, K. (2001): Applying Sociological Theory to Designing Autonomous Agents for Robust E-Commerce Markets. Proceedings of the International Conference on Autonomous Agents (Agents 2001), Montreal, Canada.
- [C09-00] Jonker, C., Klusch, M., and Treur, T., (2000): Design of Collaborative Information Agents, Proceedings of the 12<sup>th</sup> Belgium-Netherlands Artificial Intelligence Conference (BNAIC), pp. 305 - 306.
- [C08-99] Contreras, J.; Klusch, M.; Vielhak, T.; Yen, J.; Wu, F. (1999): Multi-Agent Coalition Formation in Transmission Planning: Bilateral Shapley Value and Kernel Approaches. Proceedings of the 13<sup>th</sup> International Power Systems Computation Conference (PSCC), Trondheim, Norway.
- [C07-98] Contreras, J.; Klusch, M.; Yen, J. (1998): Multi-Agent Coalition Formation in Power Transmission Planning. Proceedings of the 4<sup>th</sup> International Conference on Artificial Intelligence in Planning Systems (AIPS), June 8-10, 1998, Pittsburgh, USA.
- [C06-98] Contreras, J.; Klusch, M.; Wu, F.W. (1998): Multiagent Coalition Formation in Power Transmission Planning: A Bilateral Shapley Value Approach, Proceedings of the International Conference on Electrical Power Systems Operation and Management EPSOM 98, 22.-25.9.1998, Zürich, Switzerland.
- [C05-97] Klusch, M.; Contreras, J.; Wu, F.; Shehory, O. (1997): Coalition Formation in a Power Transmission Planning Environment. Proceedings of the 2<sup>nd</sup> International Conference on Practical Applications of Multi-Agent Systems PAAM-97, April 1997, London (UK).

- [C04-96] Klusch, M.; Shehory, O. (1996): A Polynomial Kernel-Oriented Coalition Algorithm for Rational Information Agents. Proceedings of the 2<sup>nd</sup> International Conference on Multi-Agent Systems ICMAS-96, 9.-13.12.1996, Kyoto (Japan), AAAI Press.
- [C03-95] Klusch, M.: Cooperative Discovery of Interdatabase Dependencies by Coalitions of Rational Information Agents. Proceedings of the 20<sup>th</sup> International Conference ITP-95 on Interaction between Intelligent Entities, 16.-21.6.1995, Plovdiv (Bulgarien).
- [C02-95] Klusch, M. (1995): Coalition-based cooperation between intelligent agents for a contextual recognition of interdatabase dependencies. Proceedings of the 1<sup>st</sup> International Conference on Multi-Agent Systems ICMAS-95, 12.-14.6.1995, San Francisco, USA.
- [C01-93] Klusch, M. (1993): HNS: a hybrid neural system and its use for the classification of stars. Proceedings of International Joint Conference on Neural Networks IJCNN-93, 10/1993, Nagoya (Japan), pp.687-692.

## 11.6 Workshop Papers

- [W37-24] Venkatesh, S., Macaluso, A., Nuske, M., Klusch, M., & Dengel, A. (2024): Quantum Annealing-Based Method for Efficient Coalition Formation Among LEO Satellites. Proc. IEEE Workshop on Quantum Software Engineering and Technology (QSET).
- [W36-16] Schulte, S.; Borkowski, M.; Hochreiner, C.; Klusch, M.; Murguzur, A.; Skarlat, O.; Waibel, P. (2016): Bringing Cloud-based Rapid Elastic Manufacturing to Reality with CREMA. Proceedings of the International Workshop on Intelligent Systems Configuration Services for Flexible Dynamic Global Production Networks (FLEXINET) at the 8th International Conference on Interoperability for Enterprise Systems and Applications (I-ESA 2016), Guimaraes, Portugal
- [W35-12] Cao, X.; Klusch, M. (2012): Semantic Indexing for Efficient Multimedia Retrieval. Proceedings of 10<sup>th</sup> International Workshop on Adaptive Multimedia Retrieval. Copenhagen, Denmark. Springer, LNCS. [A]
- [W34-10] Klusch, M.; Kapahnke, P. (2010): Adaptive Signature-Based Selection of Semantic Services in OWL-S. Proceedings of 1<sup>st</sup> International IEEE Workshop on Service-Oriented Computing and Multi-Agent Systems (SOCMAS) at IEEE Congress on Services, Invited copy of [W33-09].

- [W33-09] Klusch, M.; Kapahnke, P. (2009): OWLS-MX3: An Adaptive Hybrid Semantic Service Matchmaker for OWL-S. Proc. 3<sup>rd</sup> International Workshop on Semantic Matchmaking and Resource Retrieval (SMR2) at ISWC, Washington, USA; CEUR vol 525.
- [W32-08] Klusch, M.; Kapahnke, P. (2008): Semantic Web Service Selection with SAWSDL-MX. CEUR Proceedings of 2<sup>nd</sup> International Workshop on Semantic Matchmaking and Resource Retrieval (SMR2) at ISWC, Karlsruhe, Germany.
- [W31-08] Klusch, M.; Nesbigall, S.; Zinnikus, I. (2008): Model-Driven Semantic Web Service Matchmaking for Collaborative Business Processes. Proceedings of 2<sup>nd</sup> International Workshop on Semantic Matchmaking and Resource Retrieval (SMR2) at ISWC, Karlsruhe, Germany; CEUR.
- [W30-08] C. Hahn, S. Nesbigall, S. Warwas, I. Zinnikus, M. Klusch, K. Fischer (2008): Model-driven Approach to the Integration of Multiagent Systems and Semantic Web Services. Proceedings of IEEE 3<sup>rd</sup> International Workshop on Modeling, Design, and Analysis for Service-oriented Architecture (MDA4SOA), Munich, Germany.
- [W29-07] Klusch, M.; Kaufer, F. (2007): Performance of Hybrid WSML Service Matching with WSMO-MX: Preliminary Results. Proceedings of 1<sup>st</sup> Intl Joint Workshop on Semantic Matchmaking and Resource Retrieval, at Intl Semantic Web Conference, Busan, Korea; CEUR.
- [W28-07] Klusch, M.; Xing, Z. (2007): Semantic Web Services in the Web: A Preliminary Reality Check. Proceedings of 1<sup>st</sup> International Joint Workshop on Semantic Matchmaking and Resource Retrieval, at Intl. Semantic Web Conference (ISWC), Busan, Korea; CEUR.
- [W27-07] Klusch, M.; Fries, B. (2007): Hybrid OWL-S Service Retrieval with OWLS- MX: Benefits and Pitfall. Proceedings of 1<sup>st</sup> Intl. Joint Workshop on Semantic Matchmaking and Resource Retrieval, at Intl. Semantic Web Conference, Busan, Korea; CEUR.
- [W26-07] Da Silva, J.C.; Klusch, M. (2007): Privacy Preserving Pattern Discovery in Distributed Time Series. Proceedings of 3<sup>rd</sup> Intl. Workshop on Privacy Data Management (PDM), Istanbul, Turkey, IEEE CS Press.
- [W25-06] Blankenburg, B.; He, M.; Klusch, M.; Jennings, N.R. (2006): Risk-Bounded Formation of Fuzzy Coalitions Among Service Agents. Proceedings of 10<sup>th</sup> Intl Workshop on Cooperative Information Agents, LNAI 4149, Springer, Edinburgh, UK.

- [W24-06] Klusch, M.; Renner, K-U. (2006): Fast Dynamic Re-Planning of Composite OWL-S Services. Proceedings of 2<sup>nd</sup> IEEE Intl. Workshop on Service Composition (SerComp), IEEE CS Press, Hongkong, China.
- [W23-06] Klusch, M.; Gerber, A. (2006): Evaluation of Service Composition Planning with OWLS-XPlan. Proceedings of 2<sup>nd</sup> IEEE Intl Workshop on Service Composition (SerComp), IEEE CS Press, Hongkong, China.
- [W22-06] Klusch, M., Hutter, D., Volkamer, M., Gerber, A. (2006): Provably secure execution of composed semantic web services. Proceedings of the 1<sup>st</sup> Intl. Workshop on Privacy and Security of Agent-Based Collaborative Environments (PSACE), AAMAS 2006 Conference, Hakodate, Japan.
- [W21-05] Da Silva, J.C.; Klusch, M. (2005): CoDOTS: Secure outlier detection in distributed time series. Proceedings IEEE International Conference on Data Mining (ICDM) Workshop on Temporal Data Mining, Houston, USA.
- [W20-05] Möller, T.; Schuldt, H.; Gerber, A.; Klusch, M. (2005): Semantic Service Composition and Co-ordination in CASCOM. Proceedings of 3<sup>rd</sup> International Workshop on Healthcare Digital Libraries (HDL), Vienna, Austria.
- [W19-05] Klusch, M.; Fries, B.; Khalid, M., Sycara, K. (2005): OWLS-MX: Hybrid Semantic Web Service Retrieval. Proceedings of the 1<sup>st</sup> International AAAI Fall Symposium on Agents and the Semantic Web, Arlington VA, USA, AAAI Press, 2005
- [W18-05] Klusch, M.; Gerber, A.; Schmidt, M. (2005). TSemantic Web Service Composition Planning with OWLS-XPlan. Proceedings of the 1<sup>st</sup> International AAAI Fall Symposium on Agents and the Semantic Web, Arlington VA, USA, AAAI Press.
- [W17-05] Blankenburg, B.; Klusch, M. (2005): BSCA-F: Fuzzy Bilateral Shapley Value Based Coalition Forming. Proceedings of the International IJCAI-2005 Workshop on Game Theory and Decision Theory (GTDT), Edinburgh.
- [W16-05] Helin, H. et al. (2005): Context-aware business application service co-ordination in mobile computing environments. Proceedings of the International AAMAS-2005 Workshop on Ambient Intelligence, Utrecht
- [W15-02] Gerber, A., Klusch, M. (2002): Issues of Dynamic Coalition Formation Among Rational Agents. Proceedings of the International Workshop on Teamwork and Coalition Formation, at AAMAS 2002 Conference, Bologna.

- [W14-02] Gerber, A., Klusch, M. (2002): Integration of Logistics Services into an Electronic Marketplace using Multiagent Technology. Proceedings of the 14<sup>th</sup> 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.
- [W12-01] Fischer, K., Hutter, D., Klusch, M., Stephan, W. (2001): Towards a methodology for the design of secure mobile multi-agent system. Proceedings of the International Workshop on Security and mobile multi-agent systems.
- [W11-00] Jonker, C., Klusch, M., Treur, J. (2000): Design of collaborative information agents. Proceedings of the 4<sup>th</sup> International Workshop on Cooperative Information Agents, LNAI series, 1860, Springer.
- [W10-99] Klusch, M. (1999): Intelligent Agents and Electronic Commerce. Invited Paper in Proceedings of International Symposium IMPACT-99 (Impact of agent technology on telecommunications), Seattle, USA, ISSN 0904188647.
- [W09-99] Sycara, K.; Lu, J.; Klusch, M.; Widoff, S. (1999): Matchmaking Among Heterogeneous Agents in the Internet. Proceedings AAAI Spring Symposium on Intelligent Agents in Cyberspace, Stanford, USA.
- [W08-96] Klusch, M.; Shehory, O. (1996): Coalition Formation Among Rational Information Agents. Proceedings of the 7<sup>th</sup> European Workshop on Modelling Autonomous Agents in a Multi-Agent World MAAMAW-96, 22.-25.1.1996, Eindhoven (Netherlands), W. van de Velde/J. Perram (Eds.), LNAI Series, 1038:204-217, Springer
- [W07-95] Klusch, M. (1995): Cooperative Recognition of Interdatabase Dependencies. Proceedings of the 2<sup>nd</sup> ACM SIGMOD International Workshop on Advances in Databases and Information Systems ADBIS-95, 27.-30.6.1995, Moskau, J. Eder, L.A.Kalinichenko (Eds.) Wshps in Computing Series, Springer
- [W06-95] Klusch, M. (1995): Utilitarian coalition formation between information agents for a cooperative discovery of interdatabase dependencies. Proceedings of the 19<sup>th</sup> German Conference on Artificial Intelligence KI-95, Workshop on Organizational Aspects in Multiagent Systems, Bielefeld, Germany

- [W05-95] Klusch, M. (1995): Cooperative Recognition of Interdatabase Dependencies. Proceedings of the International Workshop on Description Logics DL-95, 2.-3.6.1995, Rom Italy), Rap. 0795, Dipartimento di Informatica, University of Rome, pp. 72-79
- [W04-95] Klusch, M. (1995): Towards a federative cell system FCSI for a context-based recognition of interdatabase dependencies. Proceedings of the 18<sup>th</sup> International ETCE-95 Symposium on Knowledge-based Systems in Engineering Applications, 29.1.- 1.2.1995, Houston (USA), ASME PD-Vol. 67, pp. 233-24
- [W03-94] Klusch, M. (1994): Using a cooperative agent system FCSI for a context-based recognition of interdatabase dependencies. . Proceedings of the CIKM-94 International Workshop on Intelligent Information Agents, 2.12.1994, Gaithersburg (USA)
- [W02-94] Klusch, M.: Towards a federative cell system FCSI for a context-based recognition of interdatabase dependencies, Proceedings of the 6<sup>th</sup> 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

1. *Intelligent Agents and Semantic Technologies for Industry 4.0.*  
**Keynote**, International ACM Conference on Web Intelligence (WI), Leipzig, Germany, 26.08.2017.
2. *Agents and Semantics for Future Internet Applications: Perspectives and Challenges.*  
**Keynote**, 30<sup>th</sup> ACM Symposium on Applied Computing (SAC), Salamanca, Spain, 16.4.2015.
3. *Agents and Semantics for Human Decision-Making.*  
**Keynote**, 6<sup>th</sup> 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**, 26<sup>th</sup> 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
6. *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

9. *Agents and Semantics for Intelligent Simulations in the 3D-Internet.*  
**Keynote**, 5<sup>th</sup> 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**, 8<sup>th</sup> International Workshop on Service-Oriented Computing: Agents, Semantics and Engineering (SOCASE), Toronto, Canada, 11.5.2010
12. *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. 2<sup>nd</sup> 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.** 1<sup>st</sup> 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
4. 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. 9<sup>th</sup> International Semantic Web Conference, Shanghai, China, 9.11.2010
7. iSeM: Approximated Reasoning for Adaptive Hybrid Selection of Semantic Services. 4<sup>th</sup> IEEE International Conference on Semantic Computing (ICSC), Pittsburgh, USA, 23.9.2010
8. OWLS-MX3: Adaptive Hybrid Semantic Matchmaker for OWL-S Services. 3<sup>rd</sup> International Workshop SMR2 der International Semantic Web Conference (ISWC), Washington DC, USA, 25.10.2009
9. 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.  
2<sup>nd</sup> 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.  
2<sup>nd</sup> 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.  
2<sup>nd</sup> 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.  
6<sup>th</sup> International Semantic Web Conference (ISWC), Busan, Korea, 11.12.2007
18. Deployed Semantic Services for the Common User of the Web: A Reality Check.  
2<sup>nd</sup> IEEE International Conference on Semantic Computing (ICSC), Santa Clara, USA, 5.8.2008
19. Semantic Web Services: A Preliminary Reality Check.  
6<sup>th</sup> International Semantic Web Conference (ISWC), Busan, Korea, 11.12.2007
20. Fast Composition Planning of OWL-S Services and Application.  
4<sup>th</sup> IEEE European Conference on Web Services, Zurich, Switzerland, 2006
21. WSMO-MX: A Logic Programming Based Hybrid Service Matchmaker.  
4<sup>th</sup> IEEE European Conference on Web Services, Zurich, Switzerland, 2006
22. Fast Dynamic Re-Planning of Composite OWL-S Services.  
2<sup>nd</sup> IEEE International Workshop on Service Composition, Hongkong, China, 2006

23. Evaluation of Service Composition Planning with OWLS-XPlan.  
2<sup>nd</sup> IEEE International Workshop on Service Composition, Hongkong, China, 2006
24. RS2D: Fast Adaptive Search for Semantic Web Services in Unstructured P2P Networks.  
5<sup>th</sup> International Semantic Web Conference, Athens, USA, 2006
25. Risk Driven Semantic P2P Service Retrieval.  
6<sup>th</sup> IEEE International Conference on P2P Computing, Cambridge, UK, 6.9.2006
26. Hybrid Semantic Web Service Retrieval with OWLS-MX.  
5<sup>th</sup> International Conference on Autonomous Agents and Multi-Agent Systems, Hakodate, Japan, 2006
27. Secure Web Service Composition.  
1<sup>st</sup> International workshop on Privacy and Security of Agent-Based Collaborative Environments (PSACE), Hakodate, Japan, 2006
28. Semantic Web Service Composition Planning with OWLS-XPlan.  
1<sup>st</sup> International AAI Fall Symposium on Agents and the Semantic Web, Arlington VA, USA, 2005
29. Coordination of Quantum Internet Agents.  
4<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems, Utrecht, The Netherlands, 2005
30. Privacy-Preserving Coalition Formation Among Rational Service Agents.  
3<sup>rd</sup> German Conference on Multi-Agent System Technologies, Koblenz, Germany, 2005
31. CASA: A Distributed Holonic Multiagent Architecture for Timber Production.  
1<sup>st</sup> 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.  
2<sup>nd</sup> Asia-Pacific Conference on Intelligent Agent Technology, Maebashi, Japan, 2001.
33. Coalition Formation in a Power Transmission Planning Environment.  
2<sup>nd</sup> International Conference on Practical Applications of Multi-Agent Systems, London, UK, 1997
34. A Polynomial Kernel-Oriented Coalition Algorithm for Rational Information Agents.  
2<sup>nd</sup> 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.  
18<sup>th</sup> 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.  
1<sup>st</sup> 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

### **Professor Wolfgang Wahlster**

German Research Center for Artificial Intelligence  
Stuhlsatzenhausweg 3, Saarbrücken, Germany  
E-Mail: [wolfgang.wahlster@dfki.de](mailto:wolfgang.wahlster@dfki.de), Phone: +49 681 85775 5251

### **Professor Philipp Slusallek**

German Research Center for Artificial Intelligence  
Stuhlsatzenhausweg 3, Saarbrücken, Germany  
E-Mail: [philipp.slusallek@dfki.de](mailto:philipp.slusallek@dfki.de), Phone: +49 681 85775 5377; +49 173 659 2518

### **Professor Katia Sycara**

Carnegie Mellon University  
Robotics Institute  
5000 Forbes Ave, Pittsburgh, PA 15213, USA  
E-Mail: [katia+@cs.cmu.edu](mailto:katia+@cs.cmu.edu), Phone: +1 412 268 8825, Fax: +1 412 268-5569

### **Professor Michael Huhns**

University of South Carolina  
Center for Information Technology  
Columbia, SC 29208, USA  
E-Mail: [huhns@sc.edu](mailto:huhns@sc.edu), Phone: +1 803 777 5921

### **Professor Frank van Harmelen**

Vrije Universiteit Amsterdam  
AI Department, Division of Mathematics and Computer Science  
de Boelelaan 1081a, 1081HV Amsterdam, The Netherlands.  
E-Mail: [Frank.van.Harmelen@cs.vu.nl](mailto:Frank.van.Harmelen@cs.vu.nl), Phone: +31 20 598 7731

### **Professor Ryszard Kowalczyk**

University of South Australia  
Adelaide, Australia.  
E-Mail: [Ryszard.Kowalczyk@unisa.edu.au](mailto:Ryszard.Kowalczyk@unisa.edu.au) Phone: +61 3 9214 5834, +61 422667504  
<https://people.unisa.edu.au/Ryszard.Kowalczyk>

### **Professor Sascha Ossowski**

University Rey Juan Carlos  
AI Department, Center for Intelligent Information Technologies (CETINIA)  
Calle Tulipán s/n, 28933 Móstoles (Madrid), Spain  
E-Mail: [sascha.ossowski@urjc.es](mailto:sascha.ossowski@urjc.es), Phone: +34 916647485