

# **Curriculum Vitae**

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

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## 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: Senior 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 = 36, Citations 7000 ([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

- 10/1992 – 4/1997     **Teaching and Research Assistant**  
Christian-Albrechts-University of Kiel, Institute for Informatics and Applied Mathematics, Department of Systems for Information Management. Kiel, Germany
- 4/1997 – 4/1999     **Assistant Professor (Wissenschaftlicher Assistent, C1)**  
Chemnitz University of Technology, Department of Systems for Data Management. Chemnitz, Germany
- 1/1998 – 12/1998     **Postdoctoral Research Fellow**  
Carnegie Mellon University, School of Computer Science, Robotics Institute. Pittsburgh, USA
- Since 4/1999     **Senior Researcher**  
German Research Center for Artificial Intelligence (DFKI). Saarbrücken, Germany.  
Head of Research Team Intelligent Information Systems  
Co-Head of Research Group Multiagent Systems (2004 – 2011)  
Dpty Head of Research Group Multiagent Systems (1999 – 2004)
- 3/2000 – 3/2002     **Assistant Professor (Universiteits Docent, TUD)**  
Vrije Universiteit Amsterdam  
Faculty of Sciences,  
Department of Artificial Intelligence.  
Amsterdam, The Netherlands.
- Since 7/2003     **DFKI Research Fellow**
- 4/2008 – 2/2014     **Adjunct Professor**  
Swinburne University of Technology  
Faculty of Information and Communication Technologies  
Melbourne, Australia.
- Since 7/2009     **Private Docent for Computer Science (Privatdozent, PD)**  
Saarland University,  
Faculty for Mathematics and Informatics.  
Saarbrücken, Germany.
- Since 1/2018     **Speaker of AI Chapter of the German Society for Informatics**

## Research areas and application domains:

Since 1999, the I2S research team performs application-oriented research and development of intelligent information systems in the Internet and Web. Main focus is on the application of Artificial Intelligence (AI), Agent Technologies, Services Computing, and Semantic Web Technologies for innovative means of intelligent data analysis and service coordination.

Research of my I2S team on *intelligent service coordination* addresses the challenges of a scalable, flexible, situated optimal and high-performance semantic service discovery, selection and composition planning by intelligent agents in dynamic and distributed environments. In case of contested or chargeable services and data, the agents may also have to enter rational and trusted negotiations (bargaining, coalitions, auctions) in order to resolve the conflicting goals with maximized individual or social welfare of the respective multi-agent system.

Research of the I2S team on *intelligent data analysis* addresses, in particular, the challenges of scalable, privacy-aware distributed data mining, qualitative data (stream) analysis and semantic explanations of results to the user, approximated solving of NP-hard AI and optimisation problems on GPU and in the cloud, and semantic deep learning for scene understanding and planning by autonomous cars.

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

- Modelling, learning and simulation of critical situations for autonomous cars
- medical emergency assistance services in health care
- smart event management and social media
- decentralized power regulation in smart micro-grids
- agricultural production planning and logistics
- intelligent simulation of virtual production lines
- process optimisation in cloud manufacturing
- machine condition monitoring and maintenance
- adaptive business processes in smart retail environments

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

### Scientific awards:

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

### Memberships of university faculties and scientific advisory boards:

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

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

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

### Member of professional associations:

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

#### 4. Research Visits

3/2011 – 4/2011  
4/2009 – 5/2009

**Swinburne University of Technology**, Melbourne, Australia.

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

3/2000 - 3/2002

**Vrije Universiteit Amsterdam**, Amsterdam, The Netherlands.

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

1/1998 - 12/1998

**Carnegie Mellon University**, Pittsburgh, USA.

1-year contracted employment in the position of a visiting research scientist / postdoctoral research fellow of the Robotics 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)  
<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 the following funded research projects at DFKI  
(see also Sect. 6):

1. CREMA (2014 – 2017, EC H2020 FoF; Intelligent cloud-based manufacturing)
2. ICM-Hydraulic (2013-2015, HYDAC GmbH, ZeMA GmbH; ICM-Wind succ.)
3. ICM-Wind (2012, ZeMA GmbH, HYDAC GmbH; Hybrid semantic sensor data analysis  
for fluid condition monitoring in wind turbines)
4. SocialSensor (2011 – 2014, EC FP7 IP; Semantic Social Web), WP3 Leader.
5. Collaborate3D (2011-2014, BMB+F; Collaborative 3D simulation of realities)
6. EMERGENT Software Cluster (BMB+F, 2010 – 2015), Task Q1.G2.3 Leader
7. ISReal (2009-2012, BMB+F; Intelligent 3D simulation of realities)
8. MODEST (2008, BMB+F; Model-driven agents for semantic Web services)
9. AT (2008–2012, EC FP7 COST; Agreement Technologies)
10. SCALLOPS (2004–2007, BMB+F; Secure agent-based pervasive computing)
11. SEMAS (2001–2003, BMB+F; Secure Multi-Agent Systems)
12. AGRICOLA, AGRICOLA-2 (2001 – 2003, 2006, Saarland government; CASA succ.)
13. CASA (2000–2002, Saarland government; Agent-Based Agriculture and Forestry App)
14. CASCOM (2003–2007, EC FP6 STREP; Mobile Semantic Web Services)
15. Agentcities.RTD (2001–2003, EC FP5 STREP; Agent-Based Services)
16. AgentCities.NET (2001–2003, EC FP5, CA)
17. AgentLink I – III (1998–2003; EC FP5 and FP6 CA; Agent-Based Computing)
18. AITelcom (2000–2001, Alcatel AG, Germany; AI for Telcom Apps)
19. 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 (3.4 MEUR) and collaboratively for DFKI amounts to 13.25 MEUR with a project volume of 38.8 MEUR in total.

### (1) European Research Projects

Project volume: 17,4 MEUR

Project funding for DFKI: 2,34 MEUR

#### 1. **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.

#### 2. **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.

3. **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)

4. **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>

5. **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/>

## 6. AgentCities.NET

Funding: 868 KEUR

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

DFKI share: 166 KEUR

Duration: 11/2001 – 10/2003

Coordination: DFKI

Partners: 4 (Motorola, British Telecom, EPFL, UPC) for network management

DFKI personnel: Klusch (WP6 Leader; PMB Member); Girenko (co-ordinator); Keller

Objectives: To create an open dynamic service environment based on Agent technology and make it accessible to potential users. Take-up action; European Network of Excellence. <http://www.agentcities.org/EUNET/>

### (2) National Research Projects

Project volume: 20.45 MEUR

Project funding for DFKI: 9,90 MEUR

#### 1. **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

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.

#### 2. **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.

3. **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.

4. **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/>

5. **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)

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

Funding: 245 KEUR

Source: BMB+F [DFKI Korridor]

Duration: 1/2008 – 12/2008

Cooperation Partners: Saarlouis 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)

## 7. **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.

## 8. **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 Cooperative Information Systems (**IJCIS**), World Scientific.  
Since 2002. <http://www.worldscinet.com/ijcis/ijcis.shtml>
2. International Journal of Web Semantics: Science, Services, and Agents on the Web (**WebSem**), Elsevier Science. Since 2007.  
[http://www.elsevier.com/wps/find/journaldescription.cws\\_home/671322/description#description](http://www.elsevier.com/wps/find/journaldescription.cws_home/671322/description#description)
3. International Journal of Semantic Web and Information Systems (**SWIS**), IGI Global.  
Since 2007. <http://www.ijswis.org/>
4. International Journal of Applied Decision Sciences (**ADS**), InderScience.  
Since 2008. <http://www.inderscience.com/browse/index.php?journalID=283>
5. International Journal of Web Intelligence (**WI**), IOS Press.  
Since 2015. <http://www.iospress.nl/loadtop/load.php?isbn=15701263>

Past editorial board memberships:

1. International Journal of Web Intelligence and Agent Systems (**WIAS**), IOS Press.  
2003 - 2015. <http://www.iospress.nl/loadtop/load.php?isbn=15701263>
2. International Journal of Knowledge and Information Systems (**KAIS**), Springer;  
2001 - 2009. <http://www.cs.uvm.edu/~kais/>
3. 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.

### 9.1 Conference Series

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

Past organisation activities:

- Founder and coordinator of the International Semantic Service Selection (S3) Contest, from 2007 to 2013. <http://www.dfki.de/~klusch/s3/>
- Founder and general chair of the international annual 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 conference organisation:**

- 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:**

- 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 (**244**) of conferences and workshops are listed in inverted chronological order and sorted by major research areas in the following.

### 10.1 Conferences

#### Semantic Technologies

1. 16<sup>th</sup> International Semantic Web Conference (**ISWC**), Austria, 2017
2. 14<sup>th</sup> Extended Semantic Web Conference (**ESWC**), Slovenia, 2017
3. 15<sup>th</sup> International Semantic Web Conference (**ISWC**), Japan, 2016
4. 13<sup>th</sup> Extended Semantic Web Conference (**ESWC**), Crete, Greece, 2016
5. 14<sup>th</sup> International Semantic Web Conference (**ISWC**), USA, 2015
6. 12<sup>th</sup> Extended Semantic Web Conference (**ESWC**), Crete, Greece, 2015
7. 13<sup>th</sup> International Semantic Web Conference (**ISWC**), Italy, 2014
8. 4<sup>th</sup> Joint International Semantic Technology Conference (**JIST**), Thailand, 2014.
9. 11<sup>th</sup> Extended Semantic Web Conference (**ESWC**), Crete, Greece, 2014; **Senior Program Committee Member**
10. 12<sup>th</sup> International Semantic Web Conference (**ISWC**), Sydney, Australia, 2013
11. 10<sup>th</sup> Extended Semantic Web Conference (**ESWC**), Montpellier, France, 2013
12. 11<sup>th</sup> International Semantic Web Conference (**ISWC**), Boston, USA, 2012
13. 11<sup>th</sup> International Conference on Ontologies, Databases and Applications of Semantics (**ODBASE**), Rome, Italy, 2012
14. 8<sup>th</sup> Extended Semantic Web Conference (**ESWC**), Heraklion, Greece, 2012
15. 10<sup>th</sup> International Semantic Web Conference (**ISWC**), Bonn, Germany, 2011
16. 10<sup>th</sup> Intl. Conference on Ontologies, DataBases, and Applications of Semantics (**ODBASE**), Crete, Greece, 2011.
17. 4<sup>th</sup> Asian Semantic Web Conference (**ASWC**), Shanghai, China, 2009
18. 8<sup>th</sup> International Semantic Web Conference (**ISWC**), Washington DC, USA, 2009
19. 1<sup>st</sup> International Conference on Semantic Systems (**i-Semantics**), Graz, Austria, 2009
20. 7<sup>th</sup> International Semantic Web Conference (**ISWC**), Karlsruhe, Germany, 2008
21. 3<sup>rd</sup> Asian Semantic Web Conference (**ASWC**), Thailand, 2008.
22. 5<sup>th</sup> European Conference on Semantic Web Services (**ESWC**), Tenerife, Spain, 2008.
23. 4<sup>th</sup> European Conference on Semantic Web Services (**ESWC**), Innsbruck, Austria, 2007
24. 5<sup>th</sup> International Semantic Web Conference (**ISWC**), Athens, USA, 2006.
25. 3<sup>rd</sup> European Semantic Web Conference (**ESWC**), Budva, Montenegro, 2006.
26. 4<sup>th</sup> International. Semantic Web Conference (**ISWC**), Galway, Ireland, 2005.
27. 1<sup>st</sup> International IFIP Conference on Industrial Applications of the Semantic Web (**IASW**), Jyväskylä, Finland, August 2005.

28. 3<sup>rd</sup> International Semantic Web Conference (**ISWC**), Hiroshima, Japan, November 2004
29. 3<sup>rd</sup> Intl. Conference on Ontologies, DataBases, and Applications of Semantics (**ODBASE**), Cyprus, 2004.
30. 2<sup>nd</sup> Intl. Semantic Web Conference (**ISWC**), Sundial Resort, Sanibel Island, Florida, USA, 2003

### **Agent-Based Computing**

31. 10<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Funchal, Portugal, 2018
32. 16<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Toledo, Spain, 2018
33. 8<sup>th</sup> International Conference on Industrial Applications of Holonic and Multi-Agent Systems (**HoloMAS**), Lyon, France, 2017
34. 2<sup>nd</sup> IEEE International Conference on Agents (**ICA**), Beijing, China, 2017
35. 15<sup>th</sup> German Conference on Multiagent System Technologies (**MATES**), Leipzig, Germany, 2017
36. 15<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Porto, Portugal, 2017
37. 9<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Porto, Portugal, 2017
38. 15<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), Singapore, 2016; *Senior Program Committee Member*
39. 14<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Sevilla, Spain, 2016
40. 1<sup>st</sup> IEEE International Conference on Agents (**ICA**), Matsue, Japan, 2016
41. 8<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Rome, Italy, 2016
42. 2<sup>nd</sup> (13<sup>th</sup>) European Conference on Multi-Agent Systems (**EUMAS**), Athens, Greece, 2015
43. 15<sup>th</sup> IEEE/ACM International Conference on Intelligent Agent Technology (**IAT**), Singapore, 2015
44. 7<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Lisbon, Portugal, 2015
45. 13<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2015
46. 12<sup>th</sup> German Conference on Multiagent System Technologies (**MATES**), Stuttgart, Germany, 2014
47. 13<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), Paris, France, 2014
48. 12<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2014

49. 6<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Angers, France, 2014
50. 14<sup>th</sup> IEEE/ACM International Conference on Intelligent Agent Technology (**IAT**), Warsaw, Poland, 2014
51. 11th German Conference on Multiagent System Technologies (**MATES**), Koblenz, Germany, 2013.
52. 13<sup>th</sup> IEEE/ACM International Conference on Intelligent Agent Technology (**IAT**), Atlanta, USA, 2013
53. 12<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), Saint Paul, USA, 2013
54. 11<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2013
55. 5<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Barcelona, Spain, 2013
56. 12<sup>th</sup> IEEE/ACM International Conference on Intelligent Agent Technology (**IAT**), Macau, China, 2012
57. 10th German Conference on Multiagent System Technologies (**MATES**), Trier, Germany, 2012
58. 11<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), Valencia, Spain, 2012
59. 10<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2012
60. 4<sup>th</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Vilamoura, Portugal, 2012
61. 9<sup>th</sup> German Conference on Multiagent System Technologies (**MATES**), Berlin, Germany, September, 2011
62. 9<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2011
63. 10<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), Taipei, Taiwan, 2010
64. 3<sup>rd</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Rome, Italy, 2011
65. 2<sup>nd</sup> International Conference on Agents and Artificial Intelligence (**ICAART**), Valencia, Spain, 2010
66. 9<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), Toronto, Canada, 2010
67. 8<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2010
68. 7<sup>th</sup> International Conference on Practical Applications of Agents and Multi-Agent Systems (**PAAMS**), Salamanca, Spain, 2009
69. 8<sup>th</sup> International Conference on Autonomous Agents and Multi-Agent Systems (**AAMAS**), Budapest, Hungary, 2009
70. 7<sup>th</sup> International Conference on Autonomous Agents and Multi-Agent Systems (**AAMAS**), Estoril, Portugal, 2008



71. 8<sup>th</sup> International Conference on Self-Organization and Autonomic Systems in Computing and Communications (**SOAS**), Leipzig, Germany, 2007.
72. 6<sup>th</sup> International Joint Conference on Autonomous Agents and Multi-Agent Systems (**AAMAS**), Hawaii, USA, 2007. *Senior Program Committee Member*.
73. 7<sup>th</sup> Intl Conference on Self-Organization and Autonomic Systems in Computing and Communications (**SOAS**), Erfurt, Germany, 2006.
74. 5<sup>th</sup> Intl. Conference on Autonomous Agents and Multi-Agent Systems (**AAMAS**), Hakodate, Japan, May 2006.
75. 4<sup>th</sup> German Conference on Multiagent System Technologies (**MATES**), Erfurt, Germany, September, 2006
76. 1<sup>st</sup> Intl Conference on Self-Organization and Adaptation of Multi-agent and Grid Systems (**SOAS**), Glasgow, UK, December 2005
77. 4<sup>th</sup> Intl. Conference on Autonomous Agents and Multi-Agent Systems (**AAMAS**), Utrecht, The Netherlands, July 2005
78. 4<sup>th</sup> Intl. Central and Eastern European Conference on Multi-Agent Systems (**CEEMAS**), Budapest, Hungary, September 2005
79. 2<sup>nd</sup> Intl. Conference on Industrial applications of Holonic and Multi-Agent Systems (**HoloMAS**), Copenhagen, Denmark, 2005
80. 3<sup>rd</sup> Intl. Conference on Autonomous Agents and Multiagent Systems (**AAMAS**), New York, USA, 2004.
81. 3<sup>rd</sup> Intl. Central and Eastern European Conference on Multi-Agent Systems (**CEEMAS**), Prague, Czech Republic, 2003
82. 1<sup>st</sup> Intl. Conference on Industrial Applications of Holonic and Multi-agent Systems (**HoloMAS**), Prague, Czech Republic, 2003
83. 1<sup>st</sup> Intl. Joint Conference on Autonomous Agents and Multi-Agent Systems (**AAMAS**), Bologna, Italy, 2002
84. 5<sup>th</sup> Intl. Conference on Autonomous Agents (**Agents**), Montreal, Canada, 2001; *Senior Program Committee Member*.
85. 2<sup>nd</sup> Asia-Pacific Conference on Intelligent Agent Technology (**IAT**), Japan, 2001.
86. 6<sup>th</sup> Intl. Conference on Practical Application of Intelligent Agents and Multi-Agent Technology (**PAAM**), Manchester, UK, 2001.
87. 4<sup>th</sup> Intl. Conference on Multiagent Systems (**ICMAS**), Boston, USA, 2000.
88. 3<sup>rd</sup> Intl. Conference on Autonomous Agents (**Agents**), Seattle, USA, 1999.
89. 4<sup>th</sup> Intl. Conference on Practical Application of Intelligent Agents and Multi-Agent Technology (**PAAM**), London, UK, 1999
90. 2<sup>nd</sup> Intl. Conference on Autonomous Agents (**Agents**), Minneapolis, USA, 1998.

### **Artificial Intelligence**

91. 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
92. 29<sup>th</sup> AAI Conference on Artificial Intelligence (**AAAI**), Austin (TX), USA, 2015
93. 6<sup>th</sup> IASTED International Conference on Computational Intelligence (**CI**), Innsbruck, Austria, 2015

94. 13<sup>th</sup> International IASTED Conference on Artificial Intelligence and Applications (**AIA**), Innsbruck, Austria, 2014
95. International Joint Conference on Artificial Intelligence (**IJCAI**), Barcelona, Spain, 2011. **Senior Program Committee Member**.
96. 19<sup>th</sup> European Conference on Artificial Intelligence (**ECAI**), Lisbon, Portugal, 2010
97. 6<sup>th</sup> International Conference on Prestigious Applications of Intelligent Systems (**PAIS**), Lisbon, Portugal, 2010
98. 8th International IASTED Conference on Artificial Intelligence and Applications (AIA), Innsbruck, Austria, 2008
99. 30<sup>th</sup> German Conference on Artificial Intelligence (**KI**), 10 – 13 September, Osnabrück, Germany, 2007
100. 7<sup>th</sup> International IASTED Conference on Artificial Intelligence and Applications (**AIA**), Innsbruck, Austria, 2007
101. 6<sup>th</sup> International IASTED Conference on Artificial Intelligence and Applications (**AIA**), 13 - 16 February, Innsbruck, Austria, 2006
102. 22<sup>nd</sup> International IASTED Conference on Artificial Intelligence and Applications (**AIA**), 16 - 18 February, Innsbruck, Austria, 2004
103. 3<sup>rd</sup> Intl. Conference on Knowledge Systems for Coalition Operations (**KSCO**), Pensacola, Oct 26-28, 2004, USA, 2004
104. 15<sup>th</sup> European Conference on Artificial Intelligence (**ECAI**), Lyon, France, 2002

#### **Information Systems, Web Technologies**

105. International World Wide Web Conference (**Web**), Lyon, France, 2018
106. 25<sup>th</sup> International Conference on Cooperative Information Systems (**CoopIS**), Rhodes, Greece, 2017
107. 23<sup>rd</sup> International Symposium on Methodologies for Intelligent Systems (**ISMIS**), Warsaw, Poland, 2017
108. 13<sup>th</sup> International Conference on Web Information Systems and Technologies (**WebIST**), Porto, Portugal, 2017
109. 14<sup>th</sup> International Conference on Beyond Database Architectures and Structures (**BDAS**), Poland, 2017
110. 24<sup>th</sup> International Conference on Cooperative Information Systems (**CoopIS**), Rhodes, Greece, 2016
111. 12<sup>th</sup> International Conference on Web Information Systems and Technologies (**WebIST**), Rome, Italy 2016
112. 23<sup>rd</sup> International Conference on Cooperative Information Systems (**CoopIS**), Rhodes, Greece, 2015
113. 11<sup>th</sup> International Conference on Web Information Systems and Technologies (**WebIST**), Lisbon, Portugal, 2015
114. 6<sup>th</sup> International Conference on Emerging Ubiquitous Systems and Pervasive Networks (**EUSPN**), Berlin, Germany, 2015
115. 8<sup>th</sup> International Conference on Mobile and Internet Services in Ubiquitous Computing (**IMIS**), Birmingham, UK, 2014

116. 10th International Conference on Web Information Systems and Technologies (**WebIST**), Barcelona, Spain, 2014
117. 10<sup>th</sup> IEEE International Conference on e-Business Engineering (**ICEB**), Coventry, UK, 2013. Agents for E-Business Track.
118. 10<sup>th</sup> International Conference on Mobile Web Information Systems (**MobiWIS**), Cyprus, 2013
119. 9th International Conference on Web Information Systems and Technologies (**WebIST**), Aachen, Germany, 2013
120. 8<sup>th</sup> International Conference on Web Information Systems and Technologies (**WebIST**), Porto, Portugal, 2012
121. 1<sup>st</sup> International Conference on Ambient Computing, Applications, Services and Technologies (**AMBIENT**), Barcelona, 2011
122. 25<sup>th</sup> International IEEE Conference on Advanced Information Networking and Applications (**AINA**), Singapore, 2011
123. 18<sup>th</sup> International World Wide Web Conference (**WWW**), Madrid, Spain, 2009
124. 23<sup>rd</sup> IEEE International Conference on Advance Information Networking and Application (**AINA**), Bradford, UK, 2009
125. 10<sup>th</sup> International Conference on Electronic Commerce (**ICEC**), Innsbruck, Austria, 2008
126. German Conference „Anwendungskonzepte und Vorgehensweise für dezentrale Informationssysteme“ as part of the German multi-conference on business informatics **MKWI**, Munich, Germany, 2008
127. IEEE International Conference on Adaptive Business Systems (**ICABS**), China, 2007
128. 8<sup>th</sup> International ACM Conference on Electronic Commerce (**EC**), San Diego, USA, 2007
129. International IEEE Conference on IP and Web Applications (**ICIW**), Guadeloupe, 2006
130. 3<sup>rd</sup> International Conference on Service-Oriented Computing (**ICSOC**), Amsterdam, The Netherlands, December 2005
131. 1<sup>st</sup> Intl. Conference on Mobile and Ubiquitous Systems: Networking and Services (**Mobiquitous**), August 22-25, 2004, Boston, Massachusetts, USA
132. 12<sup>th</sup> Intl. Conference on the World Wide Web (**WWW**), Budapest, Hungary, May 2003
133. 9<sup>th</sup> Intl. Conference on Database Systems for Advanced Applications (**DASFAA**), Kyoto, Japan, 2003.
134. 3<sup>rd</sup> Intl. Conference on Web Information Systems Engineering (**WISE**), Singapore, 2002
135. 11<sup>th</sup> Int. Conference on the Worldwide Web (**WWW**), Hawaii, USA, 2002
136. 2<sup>nd</sup> Intl. Conference on Electronic Commerce and Web (**EC&Web**), London, UK, 2000.
137. Intl. Conference on Electronic Commerce & Web (**EC&Web**), Munich, Germany, 2001.

138. 2<sup>nd</sup> Intl. Conference on Web Information Systems Engineering (**WISE**), Kyoto, Japan, 2001
139. Intl. Conference on Advances in Database and Information Systems (**ADBIS**), Vilnius, Lithuania, 2001.
140. 4<sup>th</sup> IFCIS Conference on Cooperative Information Systems (**CoopIS**), Edinburgh, Scotland, 1999.
141. 5<sup>th</sup> Intl. Conference on Information Systems, Analysis and Synthesis (**ISAS**), Orlando, USA, 1999
142. 3<sup>rd</sup> IFCIS Conference on Cooperative Information Systems (**CoopIS**), New York, USA, 1998
143. Intl. Conference ETCE-96 Energy Week, Houston, TX/USA, 1996.

### **Other Topics**

144. 4<sup>th</sup> International Conference on Behavioral, Economic and Socio-Cultural Computing (**BESC**), Krakow, Poland, 2017
145. 5<sup>th</sup> International Conference on Agreement Technologies (**AT**), 2017
146. International Conference on Behavioral, Economic and Socio-Cultural Computing (**BESC**), Durham, USA, 2016
147. 6<sup>th</sup> International Conference on Emerging Ubiquitous Systems and Pervasive Networks (**EUSPN**), Berlin, Germany, 2015
148. International Conference on Behavioral, Economic and Socio-Cultural Computing (**BESC**), Nanjing, China, 2015
149. 3<sup>rd</sup> International Conference on Agreement Technologies (**AT**), Athens, Greece, 2015
150. International Congress on Smart Energy Research in Europe (**SE**), Essen, Germany, 2015
151. 36<sup>th</sup> Annual Conference of the European Association for Computer Graphics (**EuroGraphics**) STAR, 2015
152. Smart Energy Research Conference (**SE**) @ e-World energy & water Congress, Essen, Germany, 2015
153. Smart Energy Research Conference (**SE**) @ e-World energy & water Congress, Essen, Germany, 2014
154. 9<sup>th</sup> ACM Symposium on Applied Computing (**SAC**), Technical Track on Coordination Languages, Models, and Applications, Seoul, Korea, 2007
155. 34<sup>th</sup> Intl. Conference on System Sciences (**HICSS**), Maui, 2001.
156. 4<sup>th</sup> Intl. Conference of Systemics, Cybernetics and Informatics (**SCI**), USA, 2000.

## 10.2 Workshops

### Semantic Technologies

157. 7<sup>th</sup> International Workshop on Linked Web Data Management (**LWDM**), Venice, Italy, 2017
158. 6<sup>th</sup> International Workshop on Linked Web Data Management (**LWDM**), Bordeaux, France, 2016
159. 5<sup>th</sup> International Workshop on Linked Web Data Management (**LWDM**), Brussels, Belgium, 2015
160. 2<sup>nd</sup> International Workshop on Social News on the Web (**SNOW**) @ WWW, Seoul, Korea, 2014
161. 4<sup>th</sup> International Workshop on Linked Web Data Management (**LWDM**) @ EDBT, Athens, Greece, 2014
162. 6<sup>th</sup> International Workshop on Semantic Web Information Management (**SWIM**), USA, 2014
163. 3<sup>rd</sup> International Workshop on Linked Web Data Management (**LWDM**) @ 15<sup>th</sup> Extended Database Technology Conference (EDBT), Genoa, Italy, 2013
164. 3<sup>rd</sup> Workshop on the use of Semantic Web Technology for Mobile and Ubiquitous Applications (**SWUMA**), @ ISWC, Boston, USA, 2012.
165. 2<sup>nd</sup> International Workshop on Linked Web Data Management (**LWDM**) @ 15<sup>th</sup> Extended Database Technology Conference (EDBT), Berlin, Germany, 2012
166. International Workshop on Evaluation of Semantic Technologies (**IWEST**) @ ISWC, Shanghai, China, 2010
167. 1<sup>st</sup> International Workshop on Linked Web Data Management (**LWDM**) @ 14<sup>th</sup> Extended Database Technology Conference (EDBT), Uppsala, Sweden, 2011
168. 2<sup>nd</sup> AI Mashup Challenge (**AI-mashup**) @ ESWC, Heraklion, Greece, 2010.
169. 3<sup>rd</sup> International Workshops on Service Matchmaking and Resource Retrieval in the Semantic Web (**SMR2**), Washington DC, USA, 2009
170. 2<sup>nd</sup> International Workshops on Service Matchmaking and Resource Retrieval in the Semantic Web (**SMR2**), Karlsruhe, Germany, 2008
171. Intl. Symposium on Rule Interchange and Applications (**RuleML**), Orlando, USA, 2007.
172. 1<sup>st</sup> Intl. IEEE/ACM Workshop on Semantic Matchmaking and Resource Retrieval (**SMR**), at VLDB Conference, Seoul, Korea, September 2006
173. 2<sup>nd</sup> Intl. Workshop on the Use of Semantic Web Technologies for Ubiquitous and Mobile Applications (**SWUMA**), Trento, Italy, 2006
174. 5<sup>th</sup> Intl. DEXA Workshop on Web Semantics (**Webs**), Krakow, Poland, 2006.
175. 4<sup>th</sup> Intl. Workshop on Web Semantics (**Webs**) at 16th Intl. Conference on Database and Expert Systems (DEXA), Copenhagen, Denmark, August 2005.
176. AAAI Spring Symposium on Semantic Web Services, Stanford, USA, March 2004.
177. 1<sup>st</sup> Intl. Workshop on Semantic Web Technology for Mobile and Ubiquitous Applications @ ISWC, Hiroshima, Japan, 2004.

178. Intl. Workshop „XML-Technologien für das Semantic Web“ (**XSW**), Berlin, Germany, October 2003

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

179. International Workshop on Multi-agent based Applications for Smart Grids and Sustainable Energy Systems (**MASGES**) @PAAMS conference, 2018

180. 1<sup>st</sup> Workshop on Sustainable Energy Systems, Smart Infrastructures, and Smart Environments (**SESSISE**), Posen, Poland, 2017

181. International Workshop on Multi-agent based Applications for Smart Grids and Sustainable Energy Systems (**MASGES**) @PAAMS conference, 2017

182. 5<sup>th</sup> International Workshop on Artificial Intelligence Techniques for Power Systems and Energy Markets (**IATEM**), Porto, Portugal, 2016

183. 4<sup>th</sup> International Workshop on Artificial Intelligence Techniques for Power Systems and Energy Markets (**IATEM**), Valencia, Spain, 2015

184. International Workshop on Multi-agent based Applications for Smart Grids and Sustainable Energy Systems (**MASGES**) @PAAMS conference, Valencia, Spain, 2015

185. 4<sup>th</sup> International Workshop on Smart Energy Networks & Multi Agent Systems (**SEN-MAS**), Lodz, Poland, 2015.

186. 3<sup>rd</sup> International Workshop on Smart Energy Networks & Multi Agent Systems (**SEN-MAS**), Warszawa, Poland, 2014.

187. International Workshop on Multi-agent based Applications for Smart Grids and Sustainable Energy Systems (**MASGES**) @PAAMS conference, Valencia, Spain, 2014

188. International Workshop on Information Sharing in Large-Scale Multi-Agent Systems (**ISLMAS**) @ AAMAS conference, 2013

189. 2<sup>nd</sup> International Workshop on Smart Energy Networks & Multi Agent Systems (**SEN-MAS**), Koblenz, Germany, 2013

190. International Workshop on Multi-agent based Applications for Sustainable Energy Systems (**MASSEs**) @PAAMS conference, Valencia, Spain, 2013

191. 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.

192. 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.

193. 1<sup>st</sup> International Workshop on Smart Energy Networks & Multi Agent Systems (**SEN-MAS**), Wroclaw, Poland, 2012.

194. 4<sup>th</sup> International Workshop on Agents and Data Mining Interaction (**ADMI**), Toronto, Canada, 2010

195. 3<sup>rd</sup> International Workshop on Agents and Data Mining Interaction (**ADMI**), Budapest, Hungary, 2009

196. 10<sup>th</sup> International Workshop on Engineering Societies in the Agents' World (**ESAW**), Utrecht, The Netherlands, 2009

197. 2<sup>nd</sup> International Workshop on Autonomous Intelligent Systems: Agents and Data Mining (**AIS-ADM**), St Petersburg, Russia, 2007

198. 4<sup>th</sup> European Workshop on Multiagent Systems (**EUMAS**), Lisbon, Portugal, 2006

199. 1<sup>st</sup> International Workshop on Privacy and Security in Agent-Based Collaborative Environments (**PSACE**) at AAMAS 2006 Conference, Japan, 2006
200. 1<sup>st</sup> International Workshop on Autonomous Intelligent Systems: Agents and Data Mining (**AIS-ADM**), St Petersburg, Russia, 2005
201. 3<sup>rd</sup> European Workshop on Multiagent Systems (**EUMAS**), Brussels, 2005
202. 4<sup>th</sup> International Workshop on Agents and P2P Computing (**AP2P**) @ AAMAS Conference, Utrecht, The Netherlands, 2005
203. 1<sup>st</sup> AAAI Fall Symposium on Agents and the Semantic Web (**ASW**), Arlington, USA, November 2005.
204. 5<sup>th</sup> International Workshop on Agent-Based Simulation (**ABS**), Portugal, 2004
205. 4<sup>th</sup> International Symposium „From Agent Theory to Agent Implementation“ (**AT2AI**), @ 17th European Cybernetics and Systems Research (EMCSR-2004), Vienna, 2004
206. 3<sup>rd</sup> International Workshop on Agents and P2P Computing (**AP2P**) @ AAMAS Conference, New York, USA, 2004
207. 1<sup>st</sup> European Workshop on Multiagent Systems (**EUMAS**), Oxford, UK, 2003
208. 1<sup>st</sup> International Workshop on Autonomy (**Autonomy**) @AAMAS Conference 2003.
209. 3<sup>rd</sup> International IEEE/ACM Workshop on Agent-based cluster and grid computing (**AgentGrid**), Tokyo, Japan, 2003.
210. 1<sup>st</sup> International Workshop on Teamwork and Coalition Formation @ AAMAS Conference, Bologna, Italy, 2002.
211. 2<sup>nd</sup> International Workshop on Ontologies in Agent Systems (**OAS**) @ AAMAS Conference, Bologna, Italy, 2002.
212. 2<sup>nd</sup> International Workshop on Challenges in Open Agent Environments, @ AAMAS Conference 2002, Bologna, Italy, 2002
213. 10<sup>th</sup> International Workshop on Multi-Agent Systems (**MAAMAW**), Annecy, France, 2001.
214. 2<sup>nd</sup> International Workshop on Infrastructure for Scalable Multi-Agent Systems @ AAMAS Conference, Montreal, Canada, 2001.
215. International Workshop on Ontologies in Agent Systems @ AAMAS Conference, Montreal, Canada, 2001
216. International Workshop on Internet Bots: Systems and Applications (**INBOSA**) @ DEXA Conference, Munich, Germany, 2001.
217. International Workshop on Engineering Societies in the Agents' World (**ESAW**), Prague, 2001
218. International ICSC Symposium on Multi-Agents and Mobile Agents in Virtual Organizations and E-Commerce (**MAMA**), Australia, 2000.
219. International Workshop on Engineering Societies in the Agents' World (**ESAW**) @ ECAI Conference, Berlin, Germany, 2000.
220. International Workshop on Agent-Based Information Systems (**ABIS**) @ DEXA Conference, Greenwich, UK, 2000.
221. 2<sup>nd</sup> German Joint Meeting on DAI, Databases and Information Retrieval (**ADI**), Rostock, Germany, 1999.

- 222. 1<sup>st</sup> International Workshop on Agent Communication Languages (**ACL**) @ IJCAI Conference, Stockholm, Sweden, 1999.
- 223. 1<sup>st</sup> International Symposium 'From Agent Theory to Agent Implementation' (**AT2AI**) @ European Conference on Cybernetics and Systems Research, Vienna, 1998.
- 224. 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**

- 225. International Workshop on Quality of Service in Smart Cities (**QoS-SC**), Pittsburgh, USA, 2016
- 226. AAAI Spring Symposium on Intelligent Web Services Meet Social Computing (**AAAI SS**), Stanford, California, 2012
- 227. International Workshop on Challenges in Mobile Service Computing (**CMSC**) @ ECOWS Conference, Lugano, Switzerland, 2011
- 228. 9th International Workshop on Service-Oriented Computing: Agents, Semantics and Engineering (**SOCASE**) @ FedCSIS Conference, Szczecin/Stettin, Poland, 2011
- 229. 8th International Workshop on Service-Oriented Computing: Agents, Semantics and Engineering (**SOCASE**) @ AAMAS, Toronto, Canada, 2010.
- 230. International IEEE Symposium on Applications and the Internet (**SAINT**), USA, 2001.
- 231. International Workshop on E-Business & Intelligent Web @ IJCAI 2001, Seattle, USA, 2001

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

- 232.3<sup>rd</sup> International Workshop on Mining Ubiquitous and Social Environments (**MUSE**), @16<sup>th</sup> ECML conference, Bristol, UK, 2012.
- 233. 5th Intl Workshop on Databases, Information Systems and P2P Computing (**DBISP2P**) @ VLDB Conference, Vienna, Austria, 2007
- 234. 4th Intl Workshop on Databases, Information Systems and P2P Computing (**DBISP2P**) @ VLDB Conference, Seoul, South Korea, 2006
- 235. 3rd Intl Workshop on Databases, Information Systems and P2P Computing (**DBISP2P**) @ VLDB conference, Trondheim, Norway, 2005
- 236. 8th International Workshop on High Performance and Distributed Data Mining (**HPDM**) @ 5th Intl. SIAM Conference on Data Mining, Newport CA, USA, 2005.
- 237. 1st International Workshop on Peer-To-Peer Knowledge Management (**P2PKM**) @ 1st Int. Conference on Mobiquitous Computing, 2004
- 238. 1st International Workshop on Peer-To-Peer Computing and Databases (**P2P&DB**) @ EDBT Conference, Heraklion, Greece, 2004.
- 239. International Workshop on Hybrid Intelligent Systems for Data Mining @ IEEE International Conference on Data Mining (**ICDM**), San Jose, USA, 2001.



240. International Workshop on Intelligent Information Integration (**I3**) @ IJCAI Conference, Stockholm, Sweden, 1999.

### **Others**

241. 1<sup>st</sup> Intl Workshop on Theory and Practice of Open Computational Systems (**TAPOCS**), 2003

242. 12<sup>th</sup> International IEEE Workshop on Enabling Technologies: Infrastructure for Collaborative Enterprises (**WETICE**), Linz, Austria, 2003

243. 7<sup>th</sup> IEEE Intl Workshop on Enabling Technologies: Infrastructure for Collaborative Enterprises (**WETICE**), Stanford, USA, 1998

244. **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 (210) are listed in inverted chronological order and sorted in the categories of books (30), special journal issues (3), journal papers (30), book chapters (18), conference (90) and workshop papers (36), and technical reports (3).<sup>1</sup>

### 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.

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<sup>1</sup> Some publications in proceedings of scientific events with ERA/CORE ranking of A\*, A or B are marked with [A\*], [A] or [B], respectively.

- [P20-09] Bruza, P.; Rijsbergen, K.v.; Sofge, D.; Lawless, B.; Klusch, M. (2009) Eds.: Quantum Interaction. Third International Symposium QI 2009, Saarbrücken, Germany, March 25 – 27, 2009, LNCS 5494, Springer.
- [P19-08] Klusch, M.; Polleres, A.; Pechoucek, M. (2008) Eds.: Cooperative Information Agents XII. Proceedings of the Eleventh International Workshop CIA 2008, Prague, Czech Republic, September 10 – 12, 2008, LNAI 5180, Springer.
- [P18-08] Kowalczyk, R.; Huhns, M.; Klusch, M.; Maamar, Z.; Vo, Q.B. (2008) Eds.: Proceedings of the International Workshop SOCASE on Service-Oriented Computing: Agents, Semantics, and Engineering. Estoril, Portugal, 2008.
- [P17-07] Petta, P., Müller, J., Klusch, M., Georgeff, M. (2007) Eds.: Multiagent System Technologies. Proceedings of the 5th German Conference MATES, Leipzig, Germany, LNAI 4687, Springer. [B]
- [P16-07] Klusch, M., Hindriks, K., Sterling, L., Papazoglou, M. (2007) Eds.: Cooperative Information Agents XI. Proceedings of the Eleventh International Workshop CIA 2007, Delft, The Netherlands, September 19 – 21, 2007, LNAI 4676, Springer.
- [P15-06] Klusch, M.; Rovatsos, M.; Payne, T. (2006) Eds.: Cooperative Information Agents X. Proceedings of the Tenth International Workshop CIA 2006, Edinburgh, UK, September 11 – 13, 2006, LNAI series, 4149, Springer.
- [P14-05] Eymann, T.; Klügl, F.; Lamersdorf, W.; Klusch, M.; Huhns, M. (2005) Eds.: Multiagent System Technologies III. Proceedings of the 3rd German Conference MATES 2005, September 2005, Koblenz, LNAI series, 3550, Springer. [B]
- [P13-04] Klusch, M.; Ossowski, S.; Kashyap, V.; Unland, R. (2004) Eds.: Cooperative Information Agents VIII. Proceedings of Eighth International Workshop CIA-2004 on Cooperative Information Agents, Erfurt, September 27 - 29, 2004, LNAI series, 3919, Springer.
- [P12-03] Schillo, M., Klusch, M.; Müller, J., Tianfield, H. (2003) Eds.: Multiagent System Technologies. Proceedings of First German Conference (MATES 2003), Erfurt, Germany, LNAI 2831, Springer. [B]

- [P11-03] Liu, J.; Klusch, M.; Zhong, N.; Cercone N. (2003) Eds.: Proceedings of the IEEE International Conference on Web Intelligence WI-2003, IEEE Press.
- [P10-03] Liu J.; Faltings, B.; Klusch, M.; Liu, C. (2003) Eds.: Proceedings of the IEEE / WIC International Conference on Intelligent Agent Technology IAT-2003, IEEE Press.
- [P09-03] Klusch, M., Omicini, A., Ossowski, S., Laamanen, H. (2003) Eds.: Cooperative Information Agents VII. Proceedings of Seventh International Workshop CIA-2003 on Cooperative Information Agents, Helsinki, Finland, August 27 - 29, 2003. LNAI series, 2782, Springer.
- [P08-02] Klusch, M., Ossowski, S., Shehory, O. (2002) Eds.: Cooperative Information Agents VI. Proceedings of Sixth International Workshop CIA-2002 on Cooperative Information Agents, Madrid, September 18 - 20, 2002, LNAI series, 2446, Springer.
- [P07-01] Klusch, M. Zambonelli, F. (2001) Eds.: Cooperative Information Agents V, Proceedings of Fifth International Workshop CIA-2001, Modena, Italy, September 6 – 8, 2001, LNAI series, 2182, Springer.
- [P06-00] Bouzeghoub, M.; Klusch, M.; Nutt, W.; Sattler, U. (2000) Eds.: Proceedings of the 7th International Workshop on Knowledge Representation meets Databases (KRDB 2000).
- [P05-00] Klusch, M.; Kerschberg, L. (2000) Eds.: Cooperative Information Agents IV. Proceedings of Fourth International Workshop CIA-2000 on Cooperative Information Agents, Boston, USA, July 7 - 9, 2000, LNAI series, 1860, Springer.
- [P04-99] Klusch, M.; Shehory, O.; Weiß, G. (1999) Eds.: Cooperative Information Agents III. Proceedings of Third International Workshop CIA-99 on Cooperative Information Agents, Uppsala, Sweden, July 31 - August 2, 1999, LNAI series, 1652, Springer.
- [P03-98] Holsten, A.; Joeris, G.; Klauck, C.; Klusch, M.; Mueller, HJ.; Mueller, JP. (1998) eds.: Intelligent Agents in Information and Process Management. Proceedings of Workshop at the 22nd German Annual Conference on Artificial Intelligence (KI98), Bremen; TZI-Bericht Nr. 9, Universität Bremen, Germany

- [P02-98] Klusch, M.; Weiß, G. (1998) Eds.: Cooperative Information Agents II - Learning, Mobility, and Electronic Commerce for Information Discovery in the Internet. Proceedings of Second International Workshop CIA-98 on Cooperative Information Agents, Paris, July 4 - 7, 1998, LNAI series, 1435, Springer.
- [P01-97] Kandzia, P.; Klusch, M. (1997) Eds.: Cooperative Information Agents. Proceedings of First International Workshop CIA-97 on Cooperative Information Agents, Kiel, Germany, February 26 - 18, 1997, Lecture Notes in Artificial Intelligence, Vol. 1202, Springer.

### Theses

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

### 11.2 Special Issues of Journals

- [S03-05] Klusch, M.; Ossowski, S.; Unland, R. (Guest editors), *Engineering 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

- [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.; Byelozorov, 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.) CASCOM - Intelligent Service Coordination in the Semantic Web. Chapter 4. Birkhäuser Verlag, Springer.
- [B12-08] Klusch, M. (2008): Semantic Web Service Description. In: M. Schumacher, H. Helin, H. Schuldt (Eds.) CASCOM - Intelligent Service Coordination in the Semantic Web. Chapter 3. Birkhäuser Verlag, Springer.
- [B11-08] B. Blankenburg, L. Botelho, F. Calhau, A. Fernandez, M. Klusch, S. Ossowski (2008): Service Composition. In: M. Schumacher, H. Helin, H. Schuldt (Eds.) CASCOM - Intelligent Service Coordination in the Semantic Web. Chapter 5. Birkhäuser Verlag, Springer.
- [B10-08] D. Bonardi, L. Botelho, M. Klusch, A. Lopes, T. Möller, A. De Oliveira e Sousa, M. Vasirani (2008): Quantitative Analysis. In: M. Schumacher, H. Helin, H. Schuldt (Eds.) CASCOM - Intelligent Service Coordination in the Semantic Web. Chapter 16. Birkhäuser Verlag, Springer.
- [B09-08] L. Botelho, A. Fernandez, M. Klusch, L. Pereira, T. Santos, P. Pais, M. Vasirani (2008): Service Discovery. In: M. Schumacher, H. Helin, H. Schuldt (Eds.) CASCOM - Intelligent Service Coordination in the Semantic Web. Chapter 16. Birkhäuser Verlag, Springer.
- [B08-04] Klusch, M. (2004): Toward Quantum Computational Agents. In: Computational Autonomy and Agents. M Nickles, M Rovatsos, G Weiss (eds.), LNAI series, 2969, Springer.

- [B07-04] Klusch M., Rist, T., Andre, E. Ishida, T., Nakashini, H. (2004): Interactive Information Agents and Interfaces. In: The Handbook of Human Factors in Web Design, RW Proctor, K-P L Vu (eds.), Lawrence Erlbaum Associates.
- [B06-03] Klusch, M., Lodi, S., Moro, G-L. (2003): Agent-Based Distributed Data Mining: The KDEC Scheme. In: Klusch, M., Bergamaschi, S., Edwards, P., Petta, P. (2003) Eds.: Intelligent Information Agents: The AgentLink Perspective. LNAI series, 2586, Springer.
- [B05-02] Klusch, M., Bürckert, H.-J., Gerber, A., Russ, C. (2002): Applications of Information Agents and Systems. In: L.C. Jain (ed.), Practical Applications of Intelligent Agents, Physica-Verlag/Springer.
- [B04-01] Klusch, M, Sycara, K. (2001): Brokering and Matchmaking for Coordination of Agent Societies: A Survey. In: Coordination of Internet Agents, A. Omicini et al. (eds.), Springer.
- [B03-00] Klusch, M. (2000): Agent-Mediated Trading: Intelligent Agents and E-Business. In: A.L.G. Hayzelden, R. Bourne (eds.): Agent Technology Applied to Networked Systems. John Wiley & Sons, 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

- [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.; Slusallek, 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]
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- [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]
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- [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.
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- [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.
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- [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.



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- [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**
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- [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\*]

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- [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\*]
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- [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.
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- [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.
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- [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.
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## 11.6 Workshop Papers

- [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 3rd 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 1st Intl Joint Workshop on Semantic Matchmaking and Resource Retrieval, at Intl Semantic Web Conference, Busan, Korea; CEUR.
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- [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 OAGM/DAGM Symposium 'Mustererkennung' ME-94, Wien, Informatik XPress 5, pp.281-287

### **11.7 Technical Reports**

- [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 (71) at different institutions and conferences listed as follows. Please note that talks which I have given at the DFKI scientific advisory board and other internal meetings of DFKI, project review meetings, as well as internal business project related scientific presentations at companies are not listed in this document.

### 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.  
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.  
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.  
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. 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
2. ICM-Hydraulic: Semantics-Empowered Condition Monitoring of Hydraulic Machines. 11th ACM International Conference on Semantic Systems (SEMANTiCS); Vienna, Austria, 16.9.2015.
3. ICM-Wind: Semantics-Empowered Fluid Condition Monitoring of Wind Turbines. 29th ACM Symposium on Applied Computing (SAC); Gyeongju, Korea, 26.3.2014.
4. ISReal: Open Platform for Semantic-Based Simulation in the 3D-Internet. 9<sup>th</sup> International Semantic Web Conference, Shanghai, China, 9.11.2010
5. 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
6. 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
7. Adaptive Hybrid Semantic Selection of SAWSDL Services. 6th European Semantic Web Conference (ESWC), Heraklion, Greece, 2.5.2009
8. Quantum Service Selection. International IEEE/ACM International Conference on Intelligent Agent Technology (IAT), Sydney, Australia, 12.12..2008
9. Toward Quantum Matchmaker Agents. International IEEE/ACM International Conference on Intelligent Agent Technology (IAT), Sydney, Australia, 10.12.2008
10. 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
11. 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

12. 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
13. 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
14. 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
15. 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
16. 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
17. Semantic Web Services: A Preliminary Reality Check.  
6<sup>th</sup> International Semantic Web Conference (ISWC), Busan, Korea, 11.12.2007
18. Fast Composition Planning of OWL-S Services and Application.  
4<sup>th</sup> IEEE European Conference on Web Services, Zurich, Switzerland, 2006
19. WSMO-MX: A Logic Programming Based Hybrid Service Matchmaker.  
4<sup>th</sup> IEEE European Conference on Web Services, Zurich, Switzerland, 2006
20. Fast Dynamic Re-Planning of Composite OWL-S Services.  
2<sup>nd</sup> IEEE International Workshop on Service Composition, Hongkong, China, 2006
21. Evaluation of Service Composition Planning with OWLS-XPlan.  
2<sup>nd</sup> IEEE International Workshop on Service Composition, Hongkong, China, 2006
22. RS2D: Fast Adaptive Search for Semantic Web Services in Unstructured P2P Networks.  
5<sup>th</sup> International Semantic Web Conference, Athens, USA, 2006
23. Risk Driven Semantic P2P Service Retrieval.  
6<sup>th</sup> IEEE International Conference on P2P Computing, Cambridge, UK, 6.9.2006

24. Hybrid Semantic Web Service Retrieval with OWLS-MX.  
5<sup>th</sup> International Conference on Autonomous Agents and Multi-Agent Systems, Hakodate, Japan, 2006
25. Secure Web Service Composition.  
1<sup>st</sup> International workshop on Privacy and Security of Agent-Based Collaborative Environments (PSACE), Hakodate, Japan, 2006
26. Semantic Web Service Composition Planning with OWLS-XPlan.  
1<sup>st</sup> International AAAI Fall Symposium on Agents and the Semantic Web, Arlington VA, USA, 2005
27. Coordination of Quantum Internet Agents.  
4<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems, Utrecht, The Netherlands, 2005
28. Privacy-Preserving Coalition Formation Among Rational Service Agents.  
3<sup>rd</sup> German Conference on Multi-Agent System Technologies, Koblenz, Germany, 2005
29. 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
30. 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.
31. Coalition Formation in a Power Transmission Planning Environment.  
2<sup>nd</sup> International Conference on Practical Applications of Multi-Agent Systems, London, UK, 1997
32. A Polynomial Kernel-Oriented Coalition Algorithm for Rational Information Agents.  
2<sup>nd</sup> International Conference on Multi-Agent Systems, Kyoto, Japan, 1996
33. Cooperative Recognition of Interdatabase Dependencies.  
International Workshop on Description Logics, Rome, Italy, 1995
34. 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
35. 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

36. Using a hybrid neural system for astronomical classification tasks.  
OAGM/DAGM International Joint Symposium on Pattern Recognition, Vienna, Austria, 1994
37. HNS: a hybrid neural system and its use for the classification of stars.  
IEEE International Joint Conference on Neural Networks, Nagoya, Japan, 1993

## 13. Teaching Activities

### 13.1 Courses

I have given the following classroom full-semester courses in the past:

1. Special Course C6139 “**Intelligent Information Agents for the Internet and Web**” (2 hrs per week). Computer Science Department of the University of the Saarland, Saarbrücken, Germany; Summer semester 2005. Oral exams.  
Syllabus: <http://www.dfki.de/~klusch/I2A-UDS-2005.html>  
Avg. number of attendees : 76
2. Special Course C6132 “**Intelligent Information Agents for the Internet and Web**” (2 hrs per week) at the computer science department of the University of the Saarland, Saarbrücken, Germany; Summer semester 2004. Oral exams.  
Syllabus: <http://www.dfki.de/~klusch/I2A-UDS-2004.html>  
Avg. number of attendees : 42
3. Special Course “**Information Agent Technology I**” (6 hrs per week, block) at the department for AI of the Free University of Amsterdam, The Netherlands; Summer semester 2000. Plus exercises (2hrs per week).  
Avg. number of attendees : 35
4. Special Course “**Information Agent Technology I**” (6 hrs per week, block) at the department for AI of the Free University of Amsterdam, The Netherlands; Summer semester 2001. Plus exercises (2hrs per week).
5. Special Course “**Information Agent Technology II**” (6 hrs per week, block) at the department for AI of the Free University of Amsterdam, The Netherlands; Fall semester 2000. Plus exercises (2hrs per week). Syllabus: Pls contact Prof. Jan Treur.
6. Special Course “**Information Agent Technology II**” (6 hrs per week, block) at the department for AI of the Free University of Amsterdam, The Netherlands; Fall semester 2001. Plus exercises (2hrs per week).
7. Basic Course “**Einführung in die Informatik**” (4 hrs per week) at the Chemnitz University of Technology, Germany; Summer semester 1997. Plus exercises (2 hrs per week). Part 1: Grundlagen der Informatik, Part 2: Höhere Programmiersprachen und PASCAL, Part 3: Betriebssysteme, Part 4: Datenbanksysteme, Part 5: Internet: Werkzeuge und Dienste.



## 13.2 Lectures

I have given the following public lectures on various topics in computer science:

1. Lecture "**Intelligente Agenten für das Internet der Dienste**" (2hrs), part of the CSD Joint Course "Ringvorlesung zu Perspektiven der Informatik", 21.11.2011, at the University of the Saarland, Saarbrücken, Germany.
2. Lecture "**Intelligente Agenten für das Internet der Dienste**" (2hrs), part of the CSD Joint Course "Ringvorlesung zu Perspektiven der Informatik", 13.12.2010, at the University of the Saarland, Saarbrücken, Germany.
3. Visiting Professor Lecture "**Agents and Semantics: Empowering the Internet of Services**" (1hr), 29.4.2009, TU Swinburne in Melbourne (Australia), ICT Faculty.
4. Inaugural Lecture "**Agents and Semantics: Empowering the Internet of Services.**" 15.7.2009, University of the Saarland, Saarbruecken, Germany.
5. Lecture "**Intelligent Information Agents**" (2hrs), 8.2.2007, part of the Course „Künstliche Intelligenz“ of Prof. Dr. Jörg Siekmann at the University of the Saarland, Saarbrücken, Germany
6. Lecture CS650 "**Intelligente Informationsagenten**" (2hrs), part of the CSD Joint Course "Ringvorlesung zu Perspektiven der Informatik", 30.10.2006, at the University of the Saarland, Saarbrücken, Germany.
7. Lecture "**Intelligente Informationsagenten**", part of the CSD Joint Course "Ringvorlesung zu Perspektiven der Informatik", 1.2.2006, at the University of the Saarland, Saarbrücken, Germany.
8. Lecture "**Searching the Web via Hyperlink Analysis**". University of Osnabrück, Computer Science Department. April 1, 2003
9. Lecture "**Föderierte Datenbanksysteme**" (2 hrs) at the department of systems for information management of the Christian-Albrechts-University of Kiel, Germany; Summer semester 1994.

### 13.3 Seminars

I have prepared and delivered the following seminars on various topics of the research fields Semantic Web, Intelligent Agents and Services:

1. Seminar on **Deep Learning for Industrial Applications**.  
Graduate level (Bachelor/Master; 7CP); University of the Saarland, Computer Science Department. Summer semester 2018.  
<http://www.dfki.de/~klusch/DeLIA-seminar-ss18/>
2. Seminar on **Advances in Artificial Neural Networks**.  
Graduate level (Bachelor/Master; 7CP); University of the Saarland, Computer Science Department. Winter semester 2017/2018.  
<http://www.dfki.de/~klusch/AANN-seminar-ws17/>
3. Seminar on **Advances in Artificial Neural Networks**.  
Graduate level (Bachelor/Master; 7CP); University of the Saarland, Computer Science Department. Summer semester 2017.  
<http://www.dfki.de/~klusch/DeepLearning-seminar-ss17/>
4. Seminar on **Advanced Topics in Services Computing**.  
Graduate level (Bachelor/Master; 7CP); University of the Saarland, Computer Science Department. Winter semester 2016/2017.  
<http://www.dfki.de/~klusch/ATSC-seminar-ws16/>
5. Seminar on **Advanced Topics in Services Computing**.  
Graduate level (Bachelor/Master; 7CP); University of the Saarland, Computer Science Department. Summer semester 2016.  
<http://www.dfki.de/~klusch/ATSC-seminar-ss16/>
6. Seminar on **Semantic Technologies and Agents for Web Engineering**.  
Graduate level (Bachelor/Master; 7CP); University of the Saarland, Computer Science Department. Summer semester 2013.  
<http://www.dfki.de/~klusch/SAWE-seminar-ss13/>
7. Seminar on **Semantic Web Technologies**.  
Graduate level (Bachelor/Master); University of the Saarland, Computer Science Department; Winter semester 2011/2012  
<http://www.dfki.de/~klusch/semweb-seminar-ws11/>
8. Seminar on **Semantic Web Services**.  
Graduate level (Bachelor/Master); University of the Saarland, Computer Science Department; Summer semester 2008.  
<http://www.dfki.de/~klusch/seminar-SWS06/>

9. Seminar on **Semantisches Web und Agenten (Semantic Web and Agents)**.  
Graduate level(Bachelor/Master); University of the Saarland, Computer Science Department; Fall semester 2006/2007. <http://www.dfki.de/~klusch/seminar-SWS06/>
10. Seminar on **Spieltheoretische Kooperationsverfahren (Game-Theoretic Cooperation Methods/Negotiation Mechanisms)**.  
Graduate level (Bachelor/Master); University of the Saarland, Computer Science Department; Fall semester 2006/2007.  
<http://www.dfki.de/~klusch/seminar-SKV06/>
11. Seminar C500 on **Semantic Web Services and Agents**.  
Graduate level; University of the Saarland, Computer Science Department; 3hrs per week; Fall semester 2005/2006. <http://www.dfki.de/~klusch/seminar-ws2005/index.html>

I have been also involved in the execution of seminars on **selected topics in the area of advanced database and knowledge based systems**; (2hrs per week) at the computer science department of the Christian-Albrechts-University of Kiel, Germany, during all semesters in the years of 1992 to 1996. In addition, I have conducted exercises of basic courses on computer science (Informatik I - IV) and database systems at the computer science department of the Christian-Albrechts-University of Kiel, Germany, in all semesters of the years 1992 to 1996.

### 13.4 Tutorials

I have given the following tutorials on various topics of my research at different conferences and summer schools:

1. Tutorial *Intelligent Information Agents: Key Enabling Technologies, Systems, and Challenges*. Presented at 5<sup>th</sup> European Agent Systems Spring School (EASSS 2003) Barcelona, Spain, February 11, 2003
2. Tutorial *Intelligent Information Agents: Key Enabling Technologies, Systems, and Challenges*. Presented at 4<sup>th</sup> European Summer School on Agent-Based Systems (EASSS 2002) Bologna, Italy, July 9, 2002
3. Tutorial *Intelligent Information Agents*. Presented at ECCAI 2001 Summer School. Prague, Czech Republic, July 12, 2001
4. Tutorial *Information Agent Systems*. Presented at 2<sup>nd</sup> European Agent Systems Summer School (EASSS 2000), Saarbrücken, Germany, August 15, 2000

5. Tutorial *Information Agent Technology for the Internet: State of the Art and Challenges*. Presented at 3rd Intl. Conference on Autonomous Agents (Agents-2000). Barcelona, Spain, June 3, 2000
6. Tutorial *Intelligent Information Agents on the Internet*. Presented at 4th Intl. Conference on Practical Application of Intelligent Agents and Multi-Agent Technology (PAAM-99) London, UK, April 19, 1999. Together with Pete Edwards, University of Aberdeen, UK
7. Tutorial *Cooperative Information Agents – State of the Art and Challenges*. Presented at International Symposium on Advances in Database and Information Systems (ADBIS-99), Maribor, Slovenia, September 13, 1999

### **13.5 Supervision and Co-Supervision of Students**

I have supervised/am currently supervising the following Bachelor/Master/PhD students.

#### **PhD Theses**

1. *Privacy Preserving Distributed Data Mining*. Universität des Saarlandes, FR Informatik, DAAD-CAPES. Supervisor. (ongoing)
2. *Semantic P2P Search and Composition*. Universität des Saarlandes, FR Informatik. Supervisor, 2010 – 2015.
3. *Coalition Formation Among Rational Agents in Uncertain and Untrustworthy Environments*. Universität des Saarlandes, FR Informatik. Supervisor. 2004 – 2014.
4. *Decision Strategies for Automated Negotiation with Limited Knowledge*. Swinburne University of Technology, ICT Faculty. Co-Supervisor. Supervisor: Prof. R. Kowalczyk. 2007 – 2011.
5. *Semantic Interoperability of Ambient Intelligent Medical Devices and e-Health Systems*. Universität des Saarlandes, Fraunhofer Institut für Biomedizinische Technik (IBMT). External Advisor; Supervisors at Fraunhofer IBMT: Prof. Günther Fuhr, Stephan Kiefer, Supervisor at MPII: Prof. Gerhard Weikum. 2007 – 2010.
6. *Flexible Cooperation Between Autonomous Agents in Dynamic Environments*. Universität des Saarlandes, FR Informatik. Advisor; Supervisor: Prof. J. Siekmann, 2000 – 2004.
7. *Adaptive Semantic Web Service Matchmaking*. Universität des Saarlandes, FR Informatik. Advisor. Supervisor: Prof. J. Siekmann. DAAD-CAPES. 2004 / 2005.

8. *Semantics and 3D Technologies for Functional Validation of Digital Mockups*. Universität des Saarlandes, FR Informatik, Jointly with EADS Munich. Advisor; Supervisor: Prof. P. Slusallek. 2009 – 2011.

### **Master, Diploma, and Bachelor Theses**

1. *On Deep Reinforcement Learning and Online POMDP Planning for Navigation of Autonomous Cars in openDS*. Universität des Saarlandes, FR Informatik, Master (ongoing)
2. *Semantic Object Relation Detection for Scene Understanding in openDS*. Universität des Saarlandes, FR Informatik, Master (ongoing)
3. *COPSE<sup>2</sup>: An Open-Source Evaluation Environment for COP Solvers*. Universität des Saarlandes, FR Informatik, Bachelor (ongoing)
4. *On Query-Based Materialization for Efficient Stream Processing*. Universität des Saarlandes, FR Informatik, Master, (finished)
5. *Adaptive Hybrid BDI Planning for Agents in the SmartFactory Domain*. Universität des Saarlandes, FR Informatik, Master, (cancelled)
6. *Accelerated Distributed Constrained Optimisation Problem Solving solving in the Cloud and on GPU*. Universität des Saarlandes, FR Informatik, Master. (cancelled: job position in Canada)
7. *On Dynamic Constrained Optimisation Problem Solving in the Cloud*. Universität des Saarlandes, Graduate School, Research Immersion Lab, 2016. (cancelled)
8. *Agent-based 3D simulation of customer behavior in retail warehouses*. Universität des Saarlandes, FR Informatik, Master studies, 2015/2016. (finished)
9. *Probabilistic Semantic Stream Reasoning and Verification: A Comparative Study*. Universität des Saarlandes, FR Informatik, Master, (cancelled)
10. *Trusted expert recommender system*. Universität des Saarlandes, FR Informatik, Master (cancelled: foundation of startup company), 2015
11. *On Approximated Critical Node Detection Problem Solving [with CUDA and MapReduce]*. Universität des Saarlandes, FR Informatik, Master. 2015 (finished)
12. *Concepts of Hybrid BDI Planning*. Universität des Saarlandes, FR Informatik, Bachelor. 2015 (finished)

13. *Context-Based Generation of Planning Problem Descriptions for the Semantic Service Planner OWLS-XPlan in the Travel Domain*. Universität des Saarlandes, FR Informatik, Bachelor. 2014. (finished)
14. *Approximated Steiner Tree Problem Solving on GPU with CUDA*. Universität des Saarlandes, FR Informatik, Bachelor. 2014 (finished)
15. *Semantic Sensor Data Analysis for Fluid Condition Monitoring of Wind Turbines*. Universität des Saarlandes; Jointly with ZeMA GmbH and HYDAC Filter Systems GmbH, FR Informatik, Master. 2013. (finished)
16. *Mobile and Cloud-Based Semantic Service Planning*. Universität des Saarlandes, FR Informatik, Master. 2013. (finished)
17. *Development of Intelligent Avatars in Virtual Worlds*. Universität des Saarlandes, FR Informatik, Bachelor. 2013. (finished)
18. *Dynamic orchestration of semantic services for flexible production process management*. TU Kaiserslautern, FR Informatik, Bachelor, Co-Advisor w/ Prof. Andreas Dengel. 2011 (finished)
19. *iSmoogle: An intelligent semantic service search engine*. Universität des Saarlandes, FR Informatik, Master (cancelled due to sickness). 2012 (finished)
20. *Semantische Dienstselektion für modellgetriebene Geschäftsprozess in jABC: Analyse, Integration und Evaluation*. Universität Potsdam, Institut für Informatik; Co-Supervisor: Prof. Tiziana Margaria-Steffen. 2010 (finished)
21. *Quantum Coordination of Multiagent Systems*. Universität des Saarlandes, FR Informatik, Master, 2007. (finished)
22. *COALA-3: Simulation of Strategic Trust and Deceit in Coalition Negotiations*. Universität des Saarlandes, FR Informatik, Master, 2009. (finished)
23. *Hybrid partial OWL ontology matching for service selection in the semantic web*. Universität des Saarlandes, Master, 2008, Supervisors: Prof. J. Siekmann, Dr. M. Klusch. (finished)
24. *Heuristische on-line Kompositionsplanung von semantischen Webdiensten mit OWLS-Xplan+ und Anwendungen*. Universität des Saarlandes, FR Informatik, Diplom, Supervisors: Prof. J. Siekmann, Dr. A. Gerber, Dr. M. Klusch. 2007 (finished)

25. *XPlanA: Situiert adaptives Offlineplanen für Agenten mittels maschineller Lernverfahren.* Universität des Saarlandes, FR Informatik, Diplom, Supervisors: Prof. J. Siekmann, Dr. A. Gerber, Dr. Thorsten Maier, Dr. M. Klusch. 2007. (finished)
26. *WSMO-MX: Logic programming based hybrid semantic web service matchmaker.* Universität des Saarlandes, FR Informatik, Diplom, Supervisors: Prof. J. Siekmann, Dr. M. Klusch. 2007. (finished)
27. *Programming of quantum matchmaker agents.* Universität des Saarlandes, FR Informatik, Diplom, Supervisors: Prof. J. Siekmann, Dr. M. Klusch. 2007. (finished)
28. *OWLS2WSDL: Tool and experimental analysis.* HTW des Saarlandes & Universität des Saarlandes, FH Master, Co-Supervisor: Prof. Güttler. 2007. (finished)
29. *Semantic web service discovery: A reality check.* Universität des Saarlandes, FR Informatik, Master, Supervisors: Prof. J. Siekmann, Dr. M. Klusch. 2007. (finished)
30. *RS2D: Risikobasierte semantische Suche nach OWL-S Diensten in unstrukturierten P2P-Netzen.* Universität des Saarlandes, FR Informatik, Diplom, Supervisors: Prof. J. Siekmann, Dr. M. Klusch. 2006 (finished)
31. *Hybrid OWL-S Semantic Web Service Retrieval with OWLS-MX.* Universität des Saarlandes, FR Informatik, Diplom, Supervisors: Prof. J. Siekmann, Dr. M. Klusch. 2006 (finished)
32. *Aspektorientierte Modellierung und Komposition von semantischen Webdiensten in OWL-S.* Universität des Saarlandes, FR Informatik, Diplom, Supervisors: Prof. J. Siekmann, Dr. M. Klusch. 2005 (finished)
33. *Interleaved Semantic Web Service Execution and Composition Planning.* Universität des Saarlandes, FR Informatik, Master, Supervisors: Prof. J. Siekmann, Dr. M. Klusch. 2005 (finished)
34. *Unschärfe Koalitionen von Informationsagenten im Internet.* Universität des Saarlandes, FR Informatik, Diplom, Supervisors: Prof. J. Siekmann, Dr. M. Klusch. 2004 (finished)
35. *Dynamische und vertrauensbasierte Koalitionen von Informationsagenten.* Universität des Saarlandes, FR Informatik, Diplom, Supervisors: Prof. J. Siekmann, Dr. M. Klusch. 2004. (finished)
36. *Ein Agentenbasierter Auktionsserver für Mobilen Elektronischen Handel im Internet.* Universität des Saarlandes, FR Informatik, Diplom, Supervisors: Prof. J. Siekmann, Dr. M. Klusch. 2003 (finished)

37. *Grafische Oberfläche eines Agentenbasierten Informations- und Handelsnetzwerks.* Universität des Saarlandes, Diplom, Supervisors: Prof. J. Siekmann, Dr. M. Klusch. 2002 (finished)
38. *Eine Nutzerschnittstelle für kooperierende Informationsagenten.* Technische Universität Chemnitz, FR Informatik, Diplom, Supervisors: Prof. W. Benn, Dr. M. Klusch; 1998 (finished)
39. *TEWIS: Implementierung eines Terminologischen Wissensrepräsentations- und Inferenzsystems.* Christian-Albrechts-Universität zu Kiel, FR Informatik, Diplom, Supervisors: Prof. P. Kandzia, Dipl.-Inform. M. Klusch. 1997 (finished)
40. *IDEAS: Implementierung einer Interaktiven Entwicklungsumgebung für Agentensysteme,* Christian-Albrechts-Universität zu Kiel, FR Informatik, Diplom, Supervisors: Prof. P. Kandzia, Dipl.-Inform. M. Klusch. 1996 (finished)
41. *Vergleich und Implementierung von Ähnlichkeitsrelationen auf Basis des EER-Datenmodells.* Christian-Albrechts-Universität zu Kiel, FR Informatik, Diplom, Supervisors: Prof. P. Kandzia, Dipl.-Inform. M. Klusch. 1995 (finished)
42. *Entwurf und Implementierung einer graphischen Oberfläche für den Kieler Simulator neuronaler Netzwerke KNNS.* Christian-Albrechts-Universität zu Kiel, FR Informatik, Diplom, Supervisors: Prof. P. Kandzia, Dipl.-Inform. M. Klusch. 1995 (finished)
43. *Analytische Untersuchung zu den Lernalgorithmen des Kieler Simulators für neuronale Netze KNNS.* Christian-Albrechts-Universität zu Kiel, FR Informatik, Diplom, Supervisors: Prof. P. Kandzia, Dipl.-Inform. M. Klusch. 1994 (finished)

### **13.6 PhD Committee Memberships**

I have been invited to join the PhD examination committees for the following PhD theses at different universities.

1. *Self-Organized Inter-Destination Multimedia Synchronization.* Alpen-Adria Universität Klagenfurt, Klagenfurt, Austria, 2015.
2. *Semantic Interoperability of Ambient Intelligent Medical Devices and e-Health Systems.* Universität des Saarlandes and Max-Planck-Institut für Informatik Saarbrücken, 2009.
3. *A Model-based Approach for Distributed Data Mining.* Honkong Baptist University, Computer Science Department, Hongkong, China, 2007.



4. *Domain Ontology Learning From The Web*. Universitat Politecnica de Catalunya, Barcelona, Spain, 2007.
5. *Flexible Cooperation Between Autonomous Agents in Dynamic Environments*. Universität des Saarlandes, 2004.
6. *Recommender Agents Based on Case-Based Reasoning and Trust*. Universitat de Girona, Spain, 2003.
7. *Self-Adaptation and Scalability in Multi-Agent Societies*. Universität des Saarlandes, 2000.

## 14. 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 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 Ryszard Kowalczyk**

Swinburne University of Technology  
ICT Faculty, Center for Computing and Engineering Software Systems  
John Street, Hawthorn (Melbourne), Victoria 3122, Australia  
E-Mail: [rkowalczyk@swin.edu.au](mailto:rkowalczyk@swin.edu.au) Phone: +61 3 9214 5834, +61 422667504

### **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 Gerhard Weikum**

Max-Planck Institute for Informatics (MPII),  
Department for Databases and Information Systems,  
Universität des Saarlandes, Campus E1.4, 66123 Saarbrücken, Germany  
E-Mail: [weikum@mpi-inf.mpg.de](mailto:weikum@mpi-inf.mpg.de) Phone: +49 681 9325 500

### **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

### **Professor Rainer Unland**

University of Duisburg-Essen  
Institute for Computer Science and Business Information Systems  
Schuetzenbahn 70, 45117 Essen, Germany  
E-Mail: [Rainer.Unland@icb.uni-due.de](mailto:Rainer.Unland@icb.uni-due.de), Phone: +49 201 183 3421