## The 7th International Semantic Web Conference.





October 26-30, 2008. Karlsruhe, Germany.

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We would like to express our special thanks to all sponsors.



## **Welcome Address**

Dear participants,

It is a great pleasure to welcome you to Karlsruhe for the Seventh International Semantic Web Conference. ISWC 2008 is a significant gathering for the Semantic Web community, with many exciting and stimulating events. This year we are fortunate to hold the conference at the Karlsruhe Kongresszentrum, a modern and convenient convention facility in Karlsruhe's city centre.

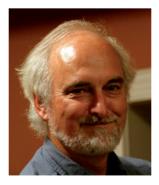
The ISWC 2008 program includes a great deal for practitioners, researchers, students, and business people, including both the experienced and those new to the concepts and technology. The days before the start of the main conference include the Doctoral Consortium, a series of eleven half and full-day tutorials, and thirteen workshops. The main conference features a series of keynote and invited talks, presentations of submitted papers, a panel, poster presentations, demonstrations, a series of lightning talks, an exhibit of products and services and several social events.

ISWC 2008 is coordinated with three synergistic, co-located events that take place just before or after the conference: the Fifth International Workshop on OWL: Experiences and Directions, the Second International Conference on Web Reasoning and Rule Systems and the Fifth International Conference on Formal Ontology in Information Systems.

The conference could not have been possible without the hard work and talent of a large number of volunteers drawn from our community. We thank program co-chairs Amit Sheth and Steffen Staab, Semantic Web in Use co-chairs Mike Dean and Massimo Paolucci, Semantic Web Challenge co-chairs Jim Hendler and Peter Mika, workshop co-chairs Melliyal Annamalai and Daniel Olmedilla, tutorial co-chairs Lalana Kagaland David Martin, poster and demonstration co-chairs Chris Bizer and Anupam Joshi, Doctoral Consortium chair Diana Maynard, sponsorship co-chairs John Domingue and Benjamin Grosof, invited industry talks chair Mark Greaves, metadata co-chairs Richard Cyganiak and Knud Möller, publicity chair Li Ding, proceedings chair Krishnaprasad Thirunarayan and fellowship chair Joel Sachs.

We want to especially thank Prof. Dr. Rudi Studer who chairs the local organizing committee, which includes Anne Eberhardt, Holger Lewen, York Sure and a host of additional volunteers. They put a great deal of work into organizing the Web site, the local arrangements, and handling all of the logistical and financial aspects.

ISWC 2008 could not be possible without the support of the Semantic Web Science Association (SWSA), a non-profit organisation established to promote and encourage scholarly work underlying the evolution of the Semantic Web and related fields. We thank our the sponsors of this year's conference for providing financial support and contributing to the program through exhibits, demonstrations and presentations. SWSA and the United States National Science Foundation deserve special thanks for providing funds for 26 student travel fellowships.



Tim Finin General Chair, ISWC 2008

## **ISWC 2008 Organizing Committee**

General Chair Tim Finin, University of Maryland, Baltimore County, USA

**Local Chair** Rudi Studer, Universität Karlsruhe (TH),

FZI Forschungszentrum Informatik, Germany

**Local Organizing Committee** Anne Eberhardt, Universität Karlsruhe (TH), Germany

Holger Lewen, Universität Karlsruhe (TH), Germany

York Sure, SAP Research Karlsruhe, Germany

**Program Chairs** Amit Sheth, Wright State University, USA

Steffen Staab, Universität Koblenz- Landau, Germany

Semantic Web in Use Chairs Mike Dean, BBN, USA

Massimo Paolucci, DoCoMo Euro-labs, Germany

Semantic Web Challenge Chairs Jim Hendler, RPI, USA

Peter Mika, Yahoo, Spain

**Workshop Chairs** Melliyal Annamalai, Oracle, USA

Daniel Olmedilla, Universität Hannover, Germany

Tutorial Chairs Lalana Kagal, MIT, USA

David Martin, SRI International, USA

**Poster and Demos Chairs** Christian Bizer, Freie Universität Berlin, Germany

Anupam Joshi, University of Maryland, Baltimore County, USA

**Doctoral Consortium Chairs** Diana Maynard, Sheffield, UK

**Sponsor Chairs** John Domingue, The Open University, UK

Benjamin Grosof, Vulcan Inc., USA

Metadata Chairs Richard Cyganiak, DERI, Ireland/Freie Universität Berlin, Germany

Knud Möller, DERI, Ireland

**Publicity Chair** Li Ding, RPI, USA

Proceedings Chair Krishnaprasad Thirunarayan, Wright State University, USA

Fellowship Chair Joel Sachs, University of Maryland, Baltimore County, USA

**Conference website:** http://iswc2008.semanticweb.org/

Metadata site: http://data.semanticweb.org

**Official tag:** iSWC2008 (no spaces, no dashes, no dots)

### **Welcome to Karlsruhe**

#### Welcome to "Semantic Karlsruhe",

It is an honour and special pleasure for me and my team to welcome you to Karlsruhe as participant of the 7th International Semantic Web Conference (ISWC'08). ISWC'08 is hosted in an exciting research and industry environment: Karlsruhe is the center of the "High Tech Region Karlsruhe" that is rated as number three among the IT clusters in Europe. Karlsruhe is also the home of the Universität Karlsruhe that is among the few universities that have been selected as excellence universities in a highly competitive process within Germany. As such, the Universität Karlsruhe is currently in the process of merging with the Research Center Karlsruhe to become the Karlsruhe Institute of Technology (KIT) by January 2009.

During the last ten years Karlsruhe has achieved a strong position in the area of Semantic Technologies: the knowledge management group at Institute AIFB, Universität Karlsruhe, the sister knowledge management group at FZI Research Center for Information Technologies as well as the spin-off company ontoprise GmbH address the area of Semantic Technologies through basic research, through application-oriented research, and by commercial exploitation. This cluster of cooperating institutions, informally called "Semantic Karlsruhe", makes Karlsruhe a rather unique place with respect to Semantic Technologies.

In case you have some leisure time: Karlsruhe is a city where almost everything is in walking distance or reachable by tram. When leaving the congress center or your hotel, you will easily find interesting museums (the Center for Art and Media ZKM is a must), restaurants with excellent food and wine, local breweries, etc. Or you might plan an excursion to Baden-Baden, to Heidelberg with its castle and historic center, to Stuttgart with its impressive Daimler car museum or to the Black Forest for a relaxing hiking tour.

I wish you a pleasant stay in Karlsruhe. My team and I will do our best to make ISWC'08 a remarkable event for all of you.



Rudi Studer Local Chair ISWC'08

### **Impressum / Imprint**

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### **Special thanks**

Special thanks to all local people behind the scenes, who spent countless hours to realise ISWC2008 in Karlsruhe: Andreas Abecker, FZI Forschungszentrum Informatik Vedrana Anicic, FZI Forschungszentrum Informatik Stephan Bloehdorn, Universität Karlsruhe (TH), AIFB Sebastian Blohm, Universität Karlsruhe (TH), AIFB Jürgen Bock, FZI Forschungszentrum Informatik Frank Dengler, Universität Karlsruhe (TH), AIFB Stephan Grimm, FZI Forschungszentrum Informatik Peter Haase, Universität Karlsruhe (TH), AIFB Heiko Haller, FZI Forschungszentrum Informatik Hans-Jörg Happel, FZI Forschungszentrum Informatik Uta Hellinger, Universität Karlsruhe (TH), AIFB Qiu Ji, Universität Karlsruhe (TH), AIFB Joachim Kleb, FZI Forschungszentrum Informatik Markus Krötzsch, Universität Karlsruhe (TH), AIFB Maria Maleshkova, Universität Karlsruhe (TH), AIFB Guilin Qi, Universität Karlsruhe (TH), AIFB Iris Scheuermann, Universität Karlsruhe (TH), KSRI Philipp Sora, Universität Karlsruhe (TH), AIFB Sebastian Speiser, Universität Karlsruhe (TH), AIFB Duc Thanh Tran, Universität Karlsruhe (TH), AIFB Yiorgos Trimponias, Universität Karlsruhe (TH), AIFB Tuvshintur Tserendorj, FZI Forschungszentrum Informatik Max Völkel, FZI Forschungszentrum Informatik Johanna Völker, Universität Karlsruhe (TH), AIFB Denny Vrandecic,, Universität Karlsruhe (TH) AIFB

### Stadtwiki Karlsruhe adds Semantics

As a special local event of the ISWC2008, the "Stadtwiki Karlsruhe" launches the Semantic MediaWiki extension plus two more languages, English and French. This brings semantic web technologies into the lifes of Karlsruhe's inhabitants and visitors.

Stadtwiki Karlsruhe is the world largest city wiki (since 2006) with information about the region of Karlsruhe. Since 2004, more than 2,000 people are collecting information about pubs, public transport, shopping, leisure, culture and many other topics. There is no editorial staff, only some rules developed in the course of the last years. The Stadtwiki is supported by a non-profit association called Bildungsverein Region Karlsruhe.

Visit http://en.ka.stadtwiki.net/ and explore a semantic reality.



## **Invited Speakers**



Ramesh Jain

Department of Computer Science, University of California

## Multimedia Semantic Web

Abstract: The Capture, Storage, Sharing, Organizing, Retrieval, and Use of knowledge dominate most socio-economic activities in our society. Most of the knowledge in the world is initially captured and stays in the form of experiences in different sensing modalities. Current technology can address knowledge in text because in text the experiential data is converted to symbols by humans. Converting sensory data to symbols in computer systems has been difficult, primarily due to our inability to formally represent and effectively model the appropriate context within which the multimedia sensory data should be interpreted. This problem of integrating continuous multimedia and symbolic data becomes more urgent as multimedia data is becoming common, and the resulting social applications on the Web are required to deal with semantics of multimedia data. Clearly, the collection of searchable multimedia experiences will facilitate progress in sciences and the quality of human life in every part of the world, across all economies and cultures. In this paper, we will present challenges offered by semantics of multimedia data, review emerging semantic web approaches towards addressing these challenges, and present some example applications that are being developed to address these emerging challenges.

**Bio**: Ramesh Jain is an educator, researcher, and entrepreneur. Currently he is the Donald Bren Professor in Information & Computer Sciences at University of California, Irvine. He is also a Distinguished Visiting Professor at National University of Singapore. Ramesh was the founding Editor-in-Chief of IEEE Multimedia magazine and serves on the editorial boards of several journals in multimedia, information retrieval and image and vision processing. He served as the Chairman of ACM SIG Multimedia. He has co-authored more than 300 research papers, co-authored and co-edited several books. He is a Fellow of ACM, IEEE, AAAI, IAPR, and SPIE. Ramesh co-founded three companies, managed them in initial stages, and then turned them over to professional management. Currently, he serves as advisor to many companies.



John Giannandre

Metaweb Technologies

## Freebase: An Open, Writable

**Abstract**: Freebase is an open database of the world's information, built by a global community and free for anyone to query, contribute to, and build applications on. Drawing from large open data sets like Wikipedia, Music-Brainz, GNIS, EDGAR etc., Freebase is curated by a passionate community of users and contains structured information on millions of topics such as people, places, music, film, food, science, historical events, and more Part of what makes this open database unique is that it spans domains, but requires that a particular topic exist only once in Freebase. Thus freebase is an identity database with a user contributed schema which spans multiple domains. For example, Arnold Schwarzenegger may appear in a movie database as an actor, a political database as a governor, and in a bodybuilder database as Mr. Universe. In Freebase, however, there is only one topic for

# Message in a Bottle - or: How can the Semantic Web Community be more convincing?



Stefan Decker

DERI Galway, Ireland

**Abstract**: Enormous resources are poured into projects like the Large Hadron Collider, the Hubble space telescope, or the Iter fusion reactor. Computer science resources pale in comparison – the European Semantic Web effort is tiny compared to those projects. Why is this the case? Does the Semantic Web (or computer science in general) promise less impact or relevance than those Physics projects? In my talk I will argue that the Physicists are much better in formulating an engaging mission and message. Especially the Semantic Web community has not been very good in coming up with a convincing mission directed to the public. We need to and we can do better. I will formulate requirements and a starting point for such a message and investigate ongoing seemingly unrelated research areas and trends on the Semantic Web like Semantic Sensor Networks, Social Semantic Desktop and Semantic Publishing and how they contributes to a better conveyable mission.

**Bio**: Prof. Stefan Decker is a professor at the National University of Ireland, Galway, and director of the Digital Enterprise Research Institute, an institute with more than 130 people working on the Semantic Web. Previously he worked at ISI, University of Southern California (2 years, Research Assistant Professor and Computer Scientist), Stanford University, Computer Science Department (Database Group) (3 Years, PostDoc and Research Associate), and Institute AIFB, University of Karlsruhe (4 years, PhD Student and Junior Researcher). He is one of the most widely cited Semantic Web scientists, and his current research interests include semantics in collaborative systems, Web 2.0, and distributed systems.

### Database of the World's Information

Arnold Schwarzenegger that brings all these facets together. The unified topic is a single reconciled identity, which makes it easier to find and contribute information about the linked world we live in.

**Bio**: John Giannandrea co-founded Metaweb Technologies with Danny Hillis and Robert Cook in 2005. Freebase is Metaweb's first product. Previously, John was Chief Technology Officer and co-founder of TellMe Networks, where he was responsible for the development and operation of the world's largest VoiceXML network which processes over two billion voice calls per year. Tellme was acquired by Microsoft Corporation in 2007. Prior to TellMe, John was Chief Technologist of Netscape's Web browser group where was involved in all versions of Netscape Navigator from 1.0 to the Mozilla open- source release. Throughout his career, John has contributed to many industry standards and protocols, including Java, HTML, HTTP, SSL, and early versions of RDF. John is originally from Scotland and graduated from Strathclyde University, Glasgow.

## **Conference Venue**

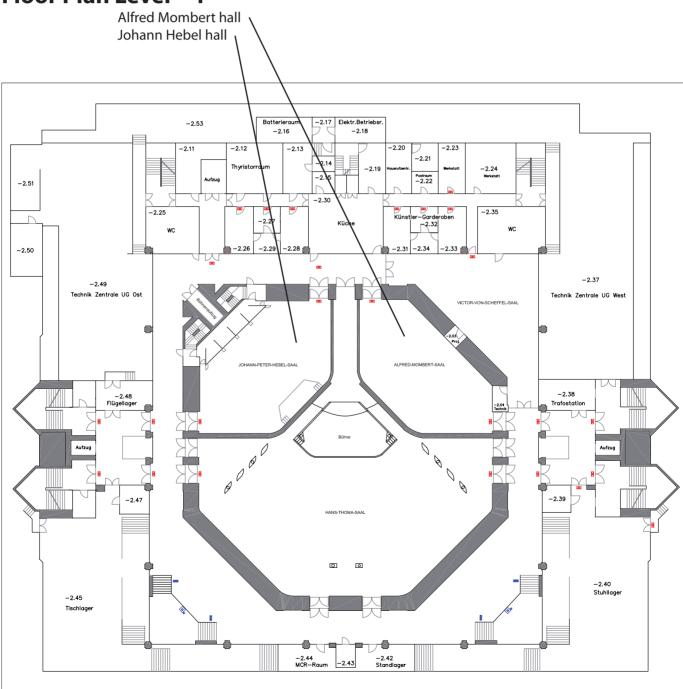
Kongresszentrum (Congress Center) Festplatz 9 76137 Karlsruhe, Germany

## **Registration Desk**

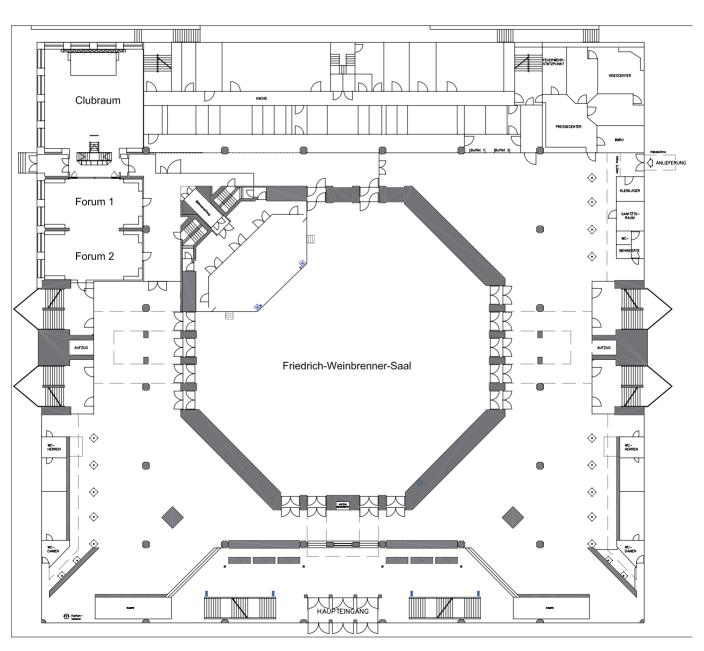
### **Opening Times**

Saturday, October 25: 16.00-18.00 Sunday, October 26: 8.00-18.00 Monday, October 27: 8.00-18.00 Tuesday:, October 28: 8.00-20.30 Wednesday, October 29: 8.00-20.00 Thursday, October 30: 8.00-18.00

### Floor Plan Level -1

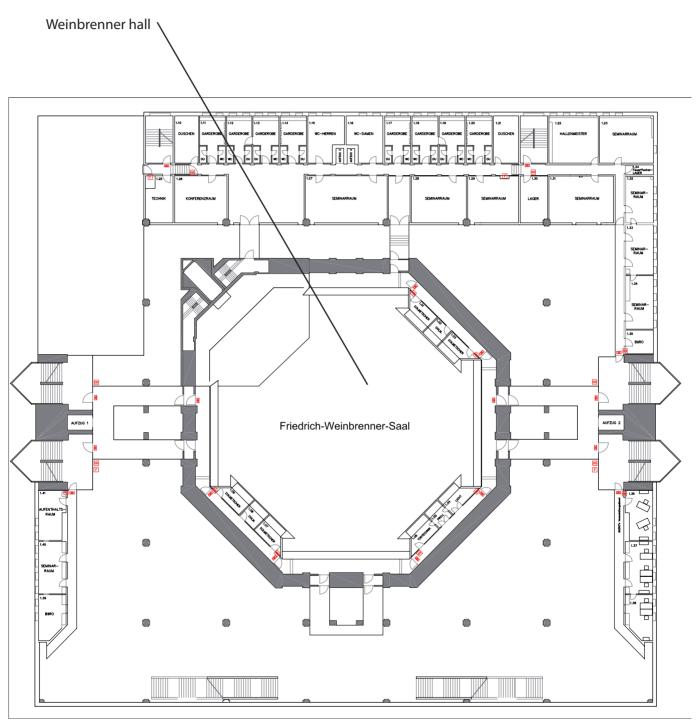


## Floor Plan Level 0

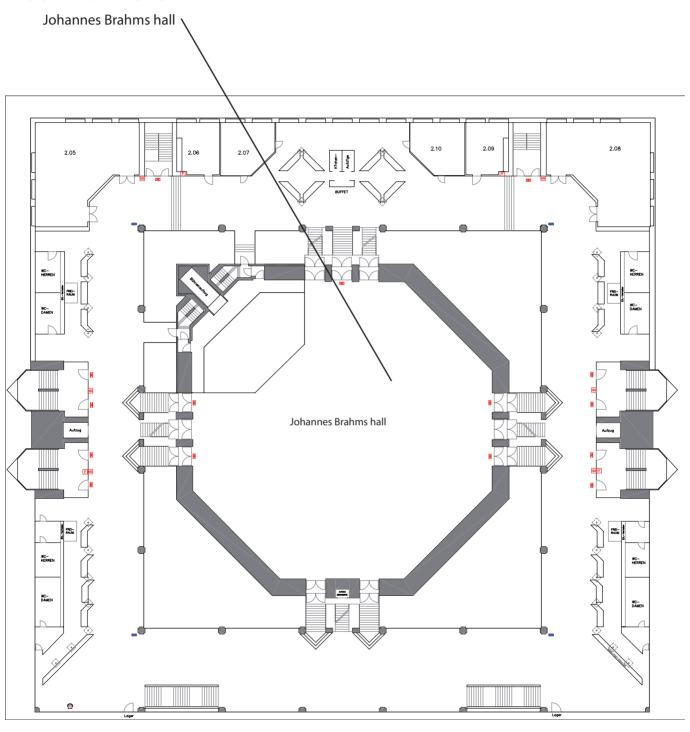


## **Conference Venue**

### Floor Plan Level +1



## Floor Plan Level +2



## **Program at A Glance**

Tuesday, October 28, 2008

#### Johann **Johannes** Alfred Johann **Johannes** Alfred Hebel hall **Brahms hall** Mombert hall Hebel hall **Brahms hall** Mombert hall 8.45-9.00 Opening Ceremony Keynote 1: Keynote 2: 9.00-10.00 Ramesh Jain, John Giannandrea UCI Metaweb Coffee Break Coffee Break 10.00-10.30 Research 1: In-Use: Research 2: Ontology Research 2: Data Research 1: 10.30-12.30 Ontology Services and Industry Talks **OWL** Alignment Management Engineering Infrastructure 12.30-14.00 Lunch Break Lunch Break Research 1: Research 1: In-Use: Software and Research 2: User 14.00-15.30 Panel: An OWL 2 far? Business Description Industry Talks Service Interfaces Applications Logics Engineering Coffee Break Coffee Break 15.30-16.00 Research 1: In-Use: Non-standard 16.00 - 18.00: Semantic Research 2: Semantic **Applications** 16.00-17.30 Reasoning Web Challenge & Retrieval from Home to with Billion Triple Challenge Space Ontologies 19.30-20.00: Reception (Foyer) 18.30-20.30: Poster Session & Welcome Reception (Foyer) 20.00-01.00: Dinner & Dancing (Weinbrennersaal)

Wednesday, October 29, 2008

### **Notes:**



### Thursday, October 30, 2008

	Johann Hebel hall	Johannes Brahms hall	Alfred Mombert hall
8.45-9.00			
9.00-10.00		Keynote 3: Stefan Decker, DERI	
10.00-10.30		Coffee Break	
10.30-12.30	Research 1: Web Data and Knowledge	Research 2: Semantic Web Services	In-Use: Knowledge Management
12.30-14.00		Lunch Break	
14.00-15.30	Research 1: Semantic Social Networks	Research 2: Rules and Relatedness	Lightning Talks
15.30-16.00		Coffee Break	
16.00-17.30		Closing Ceremony & Best Paper Awards	

## Saturday, October 25

Note: This is the only event which is not located at the Kongresszentrum, but at AIFB, Karlsruhe.



## **Doctoral Consortium**

9.00 - 9.15	Welcome and Introduction
9.15 - 10.45	Session I - oral presentations Sofia Angeletou: Semantic Enrichment of Folksonomy Tagspaces Thomas Scharrenbac: End-User Assisted Ontology Evolution in Uncertain Domains Philipp Sorg: Learning Methods in Multi-Grained Query Answering
10.45 - 11.15	Coffee Break
11.15 - 12.45	Session II - oral presentations Christian Baumann: Contracting and Copyright Issues for Composite Semantic Services Jürgen Bock: Parallel Computation Techniques for Ontology Reasoning Colm Conroy: Towards Semantic Mapping for Casual Web Users
12.45 - 14.00	Lunch
14.00 - 14.30	Session III - oral presentations  Michiel Hildebrand: Interactive exploration of heterogeneous cultural heritage collections
14.30 - 16.00	Session IV - posters  Stephanie Buhagiar, Mike Rosner and Charlie Abela: Process Fact Extraction From the Web Serge Boucher and Esteban Zimanyi: A Description Logics-Based Platform for Location-Aware Applications  Tuvshintur Tserendorj: Approximate Reasoning Over Expressive Ontologies  Paul Peitz: Scalable Service Discovery for Semantic Business Process Modeling  Philipp Kaerger: Advanced Semantic Web Policies: Evolution, Reactivity, and Priorities  Rawia Awadallah: A Proposed Framework for Text Segmentation Based on Domain Different Ideological Perspectives  Giulio Napolitano: Ontology-Based Text Mining of Pathology Reports for Cancer Patients  Görkem Gira: An Ontological Approach to Requirement Repository Construction  Joachim Kleb: Ontology-based Ranking for Named Entity Disambiguation  Jetendr Shamdasani, Richard McClatchey, Tamás Hauer and Peter Bloodsworth: Semantic Matching in the Medical Domain  Fouad Zablith: Dynamic Ontology Evolution
16.00 - 16.30	Coffee break
16.30 - 17.00	Session V - closing



Karlsruhe, Deutsche Bahn Main Station



### Note

Germany and most other parts of Europe switch back to **winter time**. On Sunday, 3 am, all clocks are moved back to 2 am. So you can sleep one hour longer.

## **Tutorials**

9:00 - 17:30	Introduction to the Semantic Web - Invited Tutorial
9:00 - 12:30	Formal Concept Analysis for the Semantic Web (half-day)
9:00 - 12:30	A Semantic Multimedia Web: Create, Annotate, Present and Share your Media (half-day)
14:00 - 17:30	Working Modularly with OWL (half-day)
14:00 - 17:30	RDFa – Bridging the Web of Documents and the Web of Data (half-day)
14:00 - 17:30	Knowledge Representation and Extraction for Business Intelligence (half-day)

## Workshops

9:00 - 17:30	Third International Workshop On Ontology Matching
9:00 - 17:30	Workshop On Uncertainty Reasoning For The Semantic Web
9:00 - 17:30	7th Semantic Web Services Challenge Workshop
9:00 - 12:30	Incentives For The Semantic Web (half-day)
9:00 - 17:30	4th International Workshop On Semantic Web Enabled Software Engineering (SWESE2008)
9:00 - 17:30	Terra Cognita 2008

## Monday, October 27

### **Rooms**

Room assignment for tutorials and workshops will be done on-site.



## **Tutorials**

9:00 - 17:30	Reasoning for Ontology Engineering and Usage
9:00 - 12:30	RSWA 2008 - Realizing a Semantic Web Application (half-day)
9:00 - 12:30	How to Publish Linked Data on the Web (half-day)
14:00 - 17:30	Semantic Web for Health Care and Life Sciences (half-day)
14:00 - 17:30	Free Semantic Content: Using OpenCyc in Semantic Web Applications (half-day)

## Workshops

9:00 - 17:30	3rd ExpertFinder Workshop: Personal Identification and Collaborations – Knowledge Mediation and Extraction (PICKME'08)
9:00 - 17:30	Social Data on the Web
9:00 - 17:30	Ontology-supported Business Intelligence – OBI 2008
9:00 - 17:30	Nature inspired Reasoning for the Semantic Web (NatuReS)
9:00 - 12:30	International Workshop on Ontology Dynamics (IWOD2008) (half-day)
9:00 - 17:30	Service Matchmaking and Resource Retrieval in the Semantic Web
9:00 - 17:30	4th International Workshop on Scalable Semantic Web Knowledge Base Systems (SSWS2008)

## **Program**

## Tuesday, October 28

8.45 **Opening Ceremony** (Johannes Brahms hall) Keynote 1: Multimedia Semantic Web (Johannes Brahms hall) 9.00-10.00 Ramesh Jain, UCI 10.00-10.30 **Coffee Break** Research 1: Ontology Engineering (Johann Peter Hebel hall) 10.30-12.30 Chair: Enrico Motta Involving Domain Experts in Authoring OWL Ontologies Vania Dimitrova, Ronald Denaux, Glen Hart, Catherine Dolbear, Ian Holt, and Anthony Cohn Supporting Collaborative Ontology Development in Protégé Tania Tudorache, Natasha Noy, Samson Tu, and Mark Musen Identifying Potentially Important Concepts and Relations in an Ontology Gang Wu, Juanzi Li, Ling Feng, and Kehong Wang RoundTrip Ontology Authoring Brian Davis, Ahmad Iabal, Adam Funk, Valentin Tablan, Kalina Bontcheva, Hamish Cunningham, and Siegfried Handschuh 10.30-12.30 Research 2: Data Management (Johannes Brahms hall) Chair: Kunal Verma NSPARQL: A Navigational Language for RDF Jorge Pérez, Marcelo Arenas, and Claudio Gutierrez An Experimental Comparison of RDF Data Management Approaches in a SPARQL Benchmark Scenario Michael Schmidt, Thomas Hornung, Norbert Kuechlin, Georg Lausen, and Christoph Pinkel Anytime Query Answering in RDF through Evolutionary Algorithms Eyal Oren, Christophe Gueret, and Stefan Schlobach The Expressive Power of SPARQL Renzo Angles and Claudio Gutierrez 10.30-12.30 In Use: Services and Infrastructure (Alfred Mombert hall) Chair: Massimo Paolucci A Process Catalog for Workflow Generation Michael Wolverton, David Martin, Ian Harrison, and Jerome Thomere Inference Web in Action: Lightweight Use of the Proof Markup Language Paulo Pinheiro da Silva, Deborah McGuinness, Nicholas Del Rio, and Li Ding Supporting Ontology-Based Dynamic Property and Classification in WebSphere Metadata Shengping Liu, Yang Yang, Guotong Xie, Chen Wang, Feng Cao, Cassio Dos Santos, Bob Schloss, Yue Pan, Kevin Shank, and John Colgrave Towards a Multimedia Content Marketplace Implementation Based on Triplespaces David de Francisco, Lyndon JB Nixon, and Germán Toro del Valle 12.30-14.00 **Lunch break** 14.00-15.30 **Research 1: Software and Service Engineering** (Johann Peter Hebel hall) Integrating Object-Oriented and Ontological Representations: A Case Study in Java and OWL

Enhancing Semantic Web Services with Inheritance

Dengping Wei, Ting Wang, Yaodong Chen, and Ji Wang

Colin Puleston, Bijan Parsia, James Cunningham, and Alan Rector

Simon Ferndriger, Abraham Bernstein, Jin Song Dong, Yuzhang Feng, Yuan-Fang Li, and Jane Hunter

Extracting Semantic Constraint from Description Text for Semantic Web Service Discovery

#### 14.00-15.30 **Research 2: Panel** (Johannes Brahms hall)

"An OWL 2 Far?" moderated by Peter F. Patel-Schneider

Panelists: Stefan Decker, Michel Dumontier, Tim Finin, Ian Horrocks

The definition of OWL, the ontology language underlying the Semantic Web, is based on formal representation methods. This provides benefits, in that tools have a firm definition of what they are supposed to do, but can have problems, due to difficulty or expense of building tools or mismatch with needs. The panel will discuss whether the general idea of designing standard Semantic Web languages with steadily increasing power (e.g., the progression from RDF to RDFS to OWL to OWL 2 to ...) all based on formal methods is the right way to support the Semantic Web. What level of expressive power does the Semantic Web need? How should standard Semantic Web languages be designed? Does the Semantic Web even need formality?

#### 14.00-15.30 In Use: Business Applications (Alfred Mombert hall, Chair: TBD)

Requirements Analysis Tool: A Tool for Automatically Analyzing Software Requirements Documents

Kunal Verma and Alex Kass

OntoNaviERP: Ontology-supported Navigation in ERP Software Documentation *Martin Hepp and Andreas Wechselberger* 

Market Blended Insight: modeling propensity to buy with the Semantic Web

Manuel Salvadores, Landong Zuo, SM Hazzaz Imtiaz, John Darlington, Nicholas Gibbins, Nigel R. Shadbolt, and James Dobree

#### 15.30-16.00 Coffee break

#### 16.00-17.30 Research 1: Non-standard Reasoning with Ontologies (Johann Peter Hebel hall)

Chair: Paolo Bouquet

Using Semantic Distances for Reasoning with Inconsistent Ontologies

Zhisheng Huang and Frank van Harmelen

Statistical Learning for Inductive Query Answering on OWL Ontologies

Nicola Fanizzi, Claudia d'Amato and Floriana Esposito

Optimization and Evaluation of Reasoning in Probabilistic Description Logic:

Towards a Systematic Approach

Pavel Klinov and Bijan Parsia

#### 16.00-17.30 **Research 2: Semantic Retrieval** (Johannes Brahms hall)

Chair: Dunia Mladenic

Modeling Documents by Combining Semantic Concepts with Unsupervised Statistical Learning

Chaitanya Chemudugunta, America Holloway, Padhraic Smyth and Mark Steyvers

Comparing ontology distances: preliminary results

Jérôme David and Jérôme Euzenat

Folksonomy-based collabulary learning

Leandro Balby Marinho, Krisztian Buza and Lars Schmidt-Thieme

#### 16.00-17.30 In Use: Applications from Home to Space (Alfred Mombert hall)

Chair: Deepali Khushraj

DogOnt - Ontology Modeling for Intelligent Domotic Environments

Dario Bonino and Fulvio Corno

Introducing IYOUIT

Sebastian Boehm, Johan Koolwaaij, Marko Luther, Betrand Souville, Matthias Wagner, and Martin Wibbels

A Semantic Data Grid for Satellite Mission Quality Analysis

Reuben Wright, Manuel Sánchez-Gestido, Asunción Gómez-Pérez, María S. Pérez-Hernández, Rafael González-Cabero, and Oscar Corcho

### 18.30-20.30 **Poster Session and Welcome Reception** (Foyer)

### **Program**

## Wednesday, October 29

9.00-10.00 Keynote 2: Freebase: An Open, Writable Database of the World's Information

(Johannes Brahms hall)

John Giannandrea, Metaweb Technologies Inc.

10.00-10.30 **Coffee Break** 

10.30-12.30 **Research 1: OWL** (Johann Peter Hebel hall)

Chair: Frank van Harmelen

Combining a DL Reasoner and a Rule Engine for Improving Entailment-based OWL

Reasoning

Georgios Meditskos and Nick Bassiliades

Improving an RCC-Derived Geospatial Approximation by OWL Axioms

Rolf Grütter, Thomas Scharrenbach, and Bettina Bauer-Messmer

OWL Datatypes: Design and Implementation

Boris Motik and Ian Horrocks

Laconic and Precise Justifications in OWL Matthew Horridge, Bijan Parsia and Ulrike Sattler

10.30-12.30 **Research 2: Ontology Alignment** (Johannes Brahms hall)

Chair: Harith Alani

Learning Concept Mappings from Instance Similarity

Shenghui Wang, Gwenn Englebienne, and Stefan Schlobach

Instanced-based mapping between thesauri and folksonomies

Christian Wartena and Rogier Brussee

Collecting Community-Based Mappings in an Ontology Repository

Natasha Noy, Nicholas Griffith, and Mark Musen

Algebras of ontology alignment relations

Jérôme Euzenat

10.30-12.30 **Industry Talks 1** (Alfred Mombert hall)

Chair: Joel Sachs

Semantic Wikis: Fusing the two strands of the Semantic Web

Mark Greaves (Vulcan Inc.)

Internet of Services

York Sure (SAP Research)

Semantic Web @ BBN

Mike Dean (BBN)

Data Intelligence

Evelyne Viegas (Microsoft Research)

12.30-14.00 **Lunch break** 

### 14.00-15.30 Research 1: Description Logics (Johann Peter Hebel hall)

Chair: Gerd Stumme

Scalable Conjunctive Query Evaluation Over Large and Expressive Knowledge Bases Julian Dolby, Achille Fokoue, Aditya Kalyanpur, Li Ma, Edith Schonberg, Kavitha Srinivas, and Xingzhi Sun

A Kernel Revision Operator for Terminologies- Algorithms and Evaluation Guilin Qi, Peter Haase, Zhisheng Huang, Qiu Ji, Jeff Z. Pan, and Johanna Voelker

Description Logic Reasoning with Decision Diagrams: Compiling SHIQ to Disjunctive Datalog Sebastian Rudolph, Markus Krötzsch, and Pascal Hitzler

#### 14.00-15.30 Research 2: User Interfaces (Johannes Brahms hall)

Chair: Natasha Noy

RDF123: from Spreadsheets to RDF

Lushan Han, Tim Finin, Cynthia Parr, Joel Sachs, and Anupam Joshi Evaluating long-term use of the Gnowsis Semantic Desktop for PIM

Leo Sauermann and Dominik Heim

Bringing The IPTC News Architecture into the Semantic Web

Raphael Troncy

### 14.00-15.30 **Industry Talks 2** (Alfred Mombert hall)

Chair: Fuesane Cheng

Semantic Web in Asia: Example Use Cases

Tony Lee (SaltLux)

Making the Web searchable

Peter Mika (Yahoo Inc),

SemanticWeb from an industry perspective

Jürgen Angele (Ontoprise)

#### 15.30-16.00 Coffee break

### 16.00-18.00 Semantic Web Challenge & Billion Triple Challenge (Johannes Brahms hall)

#### 19.30-20.00 Reception & Get Together (Foyer)

#### 20.00-01.00 **Dinner & Dancing (Weinbrennersaal)**

## **Program**

## Thursday, October 30

9.00-10.00 Keynote 3: Message in a Bottle - or: How can the Semantic Web Community be more

**convincing?** (Johannes Brahms hall)

Stefan Decker, DERI

10.00-10.30 **Coffee Break** 

10.30-12.30 **Research 1: Web Data and Knowledge** (Johannes Brahms hall)

Chair: Luciano Serafini

RDFS Reasoning and Query Answering on top of DHTs

Zoi Kaoudi, Iris Miliaraki, and Manolis Koubarakis

An Interface-based Ontology Modularization Framework for Knowledge Encapsulation

Faezeh Ensan and Weichang Du

On the Semantics of Trust and Caching in the Semantic Web

Simon Schenk

10.30-12.30 **Research 2: Semantic Web Services** (Johann Peter Hebel hall)

Chair: Vasant Honavar

Semantic Web Service Choreography: Contracting and Enactment

Dumitru Roman and Michael Kifer

Formal Model for Semantic-Driven Service Execution

Tomas Vitvar, Maciej Zaremba, and Adrian Mocan

Efficient Semantic Web Service Discovery in Centralized and P2P Environments

Dimitrios Skoutas, Dimitris Sacharidis, Verena Kantere, and Timos Sellis

10.30-12.30 In Use: Knowledge Management (Alfred Mombert hall)

Chair: Mike Dean

Thesaurus-based search in large heterogeneous collections

Jan Wielemaker, Michiel Hildebrand, Jacco van Ossenbruggen, and Guus Schreiber

Deploying semantic web technologies for work integrated learning in industry.

A comparison: SME vs. large sized company

Conny Christl, Chiara Ghidini, Joanna Guss, Stefanie Lindstaedt, Viktoria Pammer,

Marco Rospocher, Peter Scheir, and Luciano Serafini

Creating and Using Organisational Semantic Webs in Large Networked Organisations

Ravish Bhagdev, Ajay Chakravarthy, Sam Chapman, Fabio Ciravegna,

and Vitaveska Lanfranchi

An architecture for semantic navigation and reasoning with patient data - experiences of the

Health-e-Child project

Tamás Hauer, Dmitry Rogulin, Sonja Zillner, Andrew Branson, Jetendr Shamdasani, Alexey

Tsymbal, Martin Huber, Tony Solomonides and Richard McClatchey

12.30-14.00 Lunch break

### 14.00-15.30 **Research 1: Semantic Social Networks** (Johannes Brahms hall)

Chair: Fausto Giunchiglia

Exploring Semantic Social Networks using Virtual Reality Harry Halpin, David Zielinski, Rachael Brady, and Glenda Kelly

Semantic Grounding of Tag Relatedness in Social Bookmarking Systems Ciro Cattuto, Dominik Benz, Andreas Hotho, and Gerd Stumme

Semantic Modelling of User Interests based on Cross-Folksonomy Analysis Martin Szomszor, Harith Alani, Ivan Cantador, Kieron O'Hara and Nigel Shadbolt

#### 14.00-15.30 **Research 2: Rules and Relatedness** (Johann Peter Hebel hall)

Chair: Michael Kifer

ELP: Tractable Rules for OWL 2

Markus Krötzsch, Sebastian Rudolph, and Pascal Hitzler

Term Dependence on the Semantic Web

Gong Cheng and Yuzhong Qu

Semantic relatedness measure using object properties in an ontology Laurent Mazuel and Nicolas Sabouret

#### 14:00 **Lightning Talks** (Alfred Mombert hall)

#### 15.30-16.00 Coffee break

#### 16.00-17.30 Closing Ceremony and Best Paper Awards (Johannes Brahms hall)

Outlook on ISWC2009

### **Lightning Talks**

This year, ISWC includes a session of "Lightning Talks". The session provides an opportunity for participants to present ideas, comments, calls for collaboration, scathing polemic criticisms,... controversy and discussion are positively encouraged!

We particularly welcome observations or comments arising from material presented during the conference. Talks last no longer than 2 minutes and can include 1 PDF slide. There is no review process — if you are interested in presenting a lightning talk, please send email to staab[at]uni-koblenz.de with subject "Lightning Talk" with your name, affiliation and a one sentence description of your talk. You have until 12:00 on October 30 to register your interest.

