

*The 3rd International Semantic Web Conference*

# ISWC2004

FINAL PROGRAM

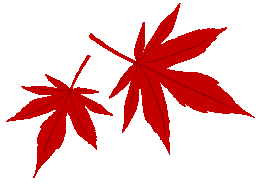


Organized by  
The Japanese Society for Artificial Intelligence  
&  
The Semantic Web Science Association

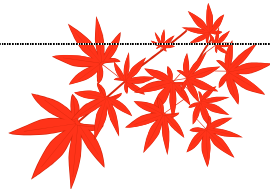
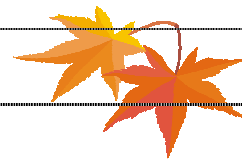
7-11 NOVEMBER, 2004  
HIROSHIMA PRINCE HOTEL, HIROSHIMA, JAPAN



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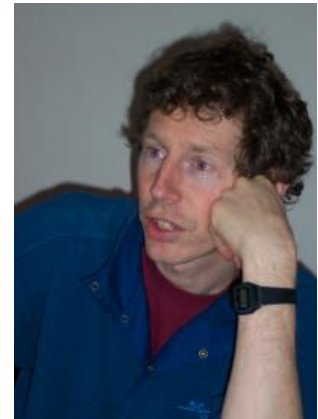


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## WELCOME MESSAGE

While the Semantic Web vision and research continues to attract attention at many different conferences, the International Semantic Web Conference has firmly established itself as the primary venue for top-level research in this area. It is therefore with great pride that I welcome you all to this Third International Semantic Web Conference in Hiroshima, Japan. This third conference completes the Semantic Web's circumnavigation of the globe, following the first conference in Europe (Sardinia) and the second conference in America (Florida).



Although primarily established to be the top scientific conference in the field, it is very encouraging to see that this conference is much richer than just the set of accepted papers. In addition to the main conference tracks (more details on this in the preface of the proceedings), there are very active and well attended events for software demonstrations and poster presentations. In fact, both events have drawn so much interest that they will be spread over two sessions during the conference, in order to give sufficient space to all participants. Furthermore, the second Semantic Web Challenge has attracted almost double the number of submissions from last year. Thus, ISWC2004 promises to be a very lively and active event.

A tell-tale sign of the high visibility of this conference is that, in a time when other major conferences have a hard time attracting sponsorship, ISWC2004 can take pride in a prestigious set of sponsors.

Finally, among the many people that have contributed to the success of this conference, I will select a few for my warmest thanks: the Program Chairs Sheila McIlraith and Dimitris Plexousakis, who are responsible for the entire scientific content of the conference; and the Local Chair, Riichiro Mizoguchi. We are very fortunate with this conference to be in the good hands of such an excellent Local Chair, presiding over such an excellent team.

I am greatly looking forward to sharing this event with you all, and I hope you will learn as much from participating in it as I have from helping to organise it.

Frank van Harmelen.  
Conference Chair.

## CONFERENCE OVERVIEW

### Sunday 7th November

|                             |             |
|-----------------------------|-------------|
| Registration                | 08.00-17.00 |
| Tutorial: Morning Session   | 08.30-12.30 |
| Workshop: Full day          | 09.00-18.00 |
| Coffee Break (30 min.)      | 10.30-11.30 |
| Lunch (90 min.)             | 12.00-14.00 |
| Tutorial: Afternoon Session | 14.00-18.00 |
| Tea Break (30 min.)         | 15.00-16.00 |

### Monday 8th November

|                        |             |
|------------------------|-------------|
| Registration           | 08.30-17.00 |
| Workshop: Full day     | 09.00-18.00 |
| Coffee Break (30 min.) | 10.30-11.30 |
| Lunch (90 min.)        | 12.00-14.00 |
| Tea Break (30 min.)    | 15.00-16.00 |

### Tuesday 9th November

|  |             |
|--|-------------|
| Registration   | 08.30-17.00 |
| Opening Ceremony   | 09.00-09.30 |
| Invited Talk   | 09.30-10.30 |
| Coffee Break   | 10.30-11.00 |
| Paper Session 1 & 2  | 11.00-12.30 |
| Lunch  | 12.30-14.00 |
| Paper Session 3 & 4  | 14.00-15.30 |
| Tea Break  | 15.30-16.00 |
| Paper Session 5 & 6  | 16.00-17.00 |
| Posters & 1 <sup>st</sup> half of Demos with Drinks & Snacks | 17.00-18.30 |

### Wednesday 10th November

|  |             |
|--|-------------|
| Registration                                   | 09.00-17.00 |
| Invited Talk                                   | 09.30-10.30 |
| Exhibition                                     | 10.30-      |
| Coffee Break                                   | 10.30-11.00 |
| Paper Session 7 & 8                            | 11.00-12.30 |
| Lunch  | 12.30-14.00 |
| Paper Session 9 & 10                           | 14.00-15.30 |
| Tea Break                                      | 15.30-16.00 |
| Paper Session 11 & 12                          | 16.00-17.00 |
| 2 <sup>nd</sup> half of Demos & Poster viewing | 17.00-18.30 |
| Banquet  | 19.00-      |

### Thursday 11th November

|                           |             |
|---------------------------|-------------|
| Registration              | 08.30-17.00 |
| Invited Talk              | 09.00-10.00 |
| Coffee Break              | 10.00-10.30 |
| Paper Session 13, 14 & 15 | 10.30-12.00 |
| Challenge Award           | 12.00-12.30 |
| Lunch                     | 12.30-14.00 |
| Paper Session 16, 17 & 18 | 14.00-15.30 |
| Tea Break                 | 15.30-16.00 |
| Paper Session 19, 20 & 21 | 16.00-17.00 |
| Closing Ceremony          | 17.00-17.15 |

#### Internet Access

- Terminals connecting with Internet in *Room 6* on Level 2.
- Wireless network in each room.

## ORGANIZING COMMITTEE

### Conference Chair

Frank van Harmelen Vrije Universiteit Amsterdam, The Netherlands

### Program Co-Chairs

Sheila McIlraith University of Toronto, Canada  
Dimitris Plexousakis ICS FORTH and University of Crete, Greece

### Local Arrangements Chair

Riichiro Mizoguchi Osaka University, Japan

### Industrial Track Co-Chairs

Dean Allemang TopQuadrant Inc., USA  
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Jeremy Carroll Hewlett-Packard Labs, UK

### Demos Chair

Stefan Decker DERI, Ireland

### Semantic Web Challenge Co-Chairs

Michel Klein Vrije Universiteit Amsterdam, The Netherlands  
Ubbo Visser University of Bremen, Germany

### Tutorial Co-Chairs

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### Workshop Chair

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### Metadata Chair

Steffen Staab University of Karlsruhe, Germany

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### Sponsorship Co-Chairs

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**TOSHIBA**



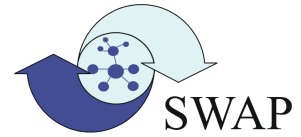
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## INVITED SPEAKERS

### **Edward Feigenbaum** (*KSL, Stanford University, USA*)

*Tuesday 9<sup>th</sup> 9.30-10.30*

Edward Feigenbaum is Kumagai Professor of Computer Science Emeritus at Stanford University. He received his Ph.D. from Carnegie Mellon University in 1960, doing pioneering Artificial Intelligence research. In the 1960s, he (with Buchanan, Lederberg, and others) started and developed the Expert Systems field, and the techniques of knowledge-based systems and knowledge engineering. In the late 1960s, he was Director of the Stanford Computation Center. In the 1970s, he served as Chairman of the Stanford University Computer Science Department. In the 1980s, he co-founded the venture companies IntelliGenetics, IntelliCorp, Teknowledge, and Design Power, that commercialized expert systems technology. He was a member of the Board of Directors of Sperry Corporation. He served on many boards of venture companies, and has been a private venture investor. He also advised the Kansai Silicon Valley Forum in Japan. He has served on the Board of Trustees of the USA National Library of Medicine. He recently completed a term on the Board of Directors of the Charles Babbage Foundation for the History of Information Processing. He is President of the Feigenbaum Nii Foundation. In the 1990s, he served the US government as Chief Scientist of the Air Force. His books include *Computers and Thought*, *Handbook of Artificial Intelligence* (four volumes), *The Fifth Generation*, *The Rise of the Expert Company* and *The Japanese Entrepreneur*. He was elected to the USA National Academy of Engineering, and the American Academy of Arts and Sciences. He was elected the second President of the American Association for Artificial Intelligence. In 1995, he won the highest research honor of Computer Science, the Turing Award of the Association for Computing Machinery.



### **Wolfgang Nejdl** (*University of Hannover, Germany*)

*Wednesday 10<sup>th</sup> 9.30-10.30*

Prof. Dr. Wolfgang Nejdl (born 1960) has been full professor of computer science at the University of Hannover since 1995. He received his M.Sc. (1984) and Ph.D. degree (1988) at the Technical University of Vienna, was assistant professor in Vienna from 1988 to 1992, and associate professor at the RWTH Aachen from 1992 to 1995. He worked as visiting researcher / professor at Xerox PARC, Stanford University, University of Illinois at Urbana-Champaign and EPFL Lausanne. Prof. Nejdl heads the Information Systems Institute / Knowledge Based Systems ([www.kbs.uni-hannover.de](http://www.kbs.uni-hannover.de)) as well as the L3S Research Center ([www.l3s.de](http://www.l3s.de)), and

does research in the areas of semantic web technologies, peer-to-peer information systems, adaptive hypermedia systems and artificial intelligence. In the L3S he coordinates the Network of Excellence PROLEARN, as part of the 6th EU research program on technology enhanced learning, and participates as core partner in the KnowledgeWeb and REVERSE Networks of Excellence focusing on Semantic Web Technologies. He has published more than 180 articles in journals, conferences and workshops in the areas of artificial intelligence, databases, WWW and the Semantic Web and is and has been program committee and editorial board member of numerous international conferences and journals.

### **Marie-Christine Rousset** (*LRI, France*)

*Thursday 11<sup>th</sup> 9.00-10.00*

Marie-Christine Rousset is a Professor at the University of Paris-Sud, and head of the Artificial Intelligence and Inference systems group of the LRI (Computer Science Laboratory). Jointly with Serge Abiteboul from INRIA, she has initiated and co-leads the Gemo group (Integration of Data and knowledge Distributed over the Web) within the Pole Commun de Recherche in Informatique (PCRI), a joint lab between INRIA, Ecole Polytechnique, Université Paris-Sud and CNRS. Her research topics are knowledge representation and information integration for the semantic web, in particular: description logics, hybrid knowledge representation languages, query rewriting using views, automatic classification of semistructured data (e.g., XML documents), mediation systems for the semantic web. She has published over 60 refereed international journal articles and conference papers, and participated in several cooperative industry-university projects. She received a best paper award from AAAI in 1996. She has served in many program committees of international conferences and workshops and is a frequent reviewer of several journals. She has organized or chaired several workshops or conferences (DL 1997, RFIA 2000, KRDB 2002, ECAI 2004 tutorial chair).



## PROGRAM FOR TUTORIALS AND WORKSHOPS

### Sunday 7th

#### TUTORIALS

Morning session 8.30-12.30

**T1: XQuery: the query language, its applications and its implementations** [Room 8]

Daniela Florescu and Donald Kossman

**T2: Ontology Design Patterns and Problems: Practical Ontology Engineering using Protege-OWL** [Room 10]

Alan Rector, Guus Schreiber, Natalya F. Noy, Holger Knublauch, and Mark A. Musen

**T3: Tools and Technologies for Semantic Web Services** [Room 4]

Christoph Bussler, Katia Sycara, Sinuhe Arroyo, Liliana Cabral, John Domingue, Matthew Moran, Michael Stollberg, and Michael Zarella

Afternoon session 14.00-18.00

**T4: RDF and Topic Maps Interoperability in Practice** [Room 8]

Steve Pepper and Lars Marius Garshol

**T5: Theory and Practice of RDF Query Processing** [Room 10]

Heiner Stuckenschmidt, Ad Aerts, Richard Vdovjak, Geert-Jan Houben, and Jeen Broekstra

**T6: Semantic Web Rules with Ontologies, and their E-Business Applications** [Room 4]

Benjamin Grosz and Mike Dean

#### WORKSHOPS

Full-day session 9.00-18.00

**W1: Semantic Web technology for mobile and ubiquitous applications** [Room 5]

Monique Calisti, Chiara Ghidini, Kaoru Hiramatsu, Terry Payne, and Valentina Tamma

**W2: Trust, Security, and Reputation on the Semantic Web** [Room 7]

Piero Bonatti, Jennifer Golbeck, Wolfgang Nejdl, and Marianne Winslett

### Monday 8th

#### WORKSHOPS

Full-day session 9.00-18.00

**W3: SW-EL'04: Applications of Semantic Web Technologies for E-Learning** [Room 10]

Lora Aroyo, Darina Dicheva, Riichiro Mizoguchi, and Yukihiro Itoh

**W4: Evaluation of Ontology-based Tools (EON2004)** [Room 7]

York Sure, Oscar Corcho, Jérôme Euzenat, and Todd Hughes

**W5: Rules and Rule Markup Languages for the Semantic Web** [Room 5]

Grigoris Antoniou and Harold Boley

**W6: Semantic Web Services: Preparing to Meet the World of Business Applications** [Room 4]

David Martin, Takahira Yamaguchi, and Rubén Lara Hernández

**W7: Meaning coordination and negotiation** [Room 8]

Paolo Bouquet and Luciano Serafini

**W8: Knowledge Markup and Semantic Annotation (Semannot2004)** [Room 9]

Siegfried Handschuh and Thierry Declerck

**Sunday 7th**

|             | Room 4  | Room 5 | Room 7 | Room 8 | Room 9 | Room 10 |
|-------------|---|--------|--------|--------|--------|---------|
| 08.30-      | T3  |        |        | T1     |        | T2      |
| 09.00-      |   | W1     | W2     |        |        |         |
| 10.30-11.30 | Coffee Break (30 min.) [Top of Hiroshima, Level 23] |        |        |        |        |         |
|             |   |        |        |        |        |         |
| 12.00-14.00 | Lunch (90 min.) [Top of Hiroshima, Level 23]        |        |        |        |        |         |
| 14.00-      | T6  |        |        | T4     |        | T5      |
| 15.00-16.00 | Tea Break (30 min.) [Top of Hiroshima, Level 23]    |        |        |        |        |         |
| -18.00      |   |        |        |        |        |         |

**Monday 8th**

|             | Room 4  | Room 5 | Room 7 | Room 8 | Room 9 | Room 10 |
|-------------|---|--------|--------|--------|--------|---------|
| 09.00-      | W6  | W5     | W4     | W7     | W8     | W3      |
| 10.30-11.30 | Coffee Break (30 min.) [Top of Hiroshima, Level 23] |        |        |        |        |         |
|             |   |        |        |        |        |         |
| 12.00-14.00 | Lunch (90 min.) [Top of Hiroshima, Level 23]        |        |        |        |        |         |
| 14.00-      |   |        |        |        |        |         |
| 15.00-16.00 | Tea Break (30 min.) [Top of Hiroshima, Level 23]    |        |        |        |        |         |
| -18.00      |   |        |        |        |        |         |

## PROGRAM OVERVIEW

### Tuesday 9th

|               |  |   |
|---------------|--|---|
| 09.00 - 09.30 | <b>Opening Ceremony</b> [Room 1]   |   |
| 09.30 - 10.30 | <b>Invited speaker: Edward Feigenbaum</b> [Room 1]                           |   |
| 10.30 - 11.00 | Coffee Break [Room 4]  |   |
| 11.00 - 12.30 | 1: Integration & Interoperability [Room 1]                                   | 2: Searching & Querying [Room 2]            |
| 12.30 - 14.00 | Lunch [Top of Hiroshima, Level 23]   |   |
| 14.00 - 15.30 | 3: SW Services [Room 1]  | 4: User Interfaces & Visualization [Room 2] |
| 15.30 - 16.00 | Tea Break [Room 4]   |   |
| 16.00 - 17.00 | 5: SW Mining [Room 1]  | 6: Large Scale Knowledge Mgmt [Room 2]      |
| 17.00 - 18.30 | <b>Posters &amp; 1st half of Demos with Drinks &amp; Snacks</b> [Room 5 & 6] |   |

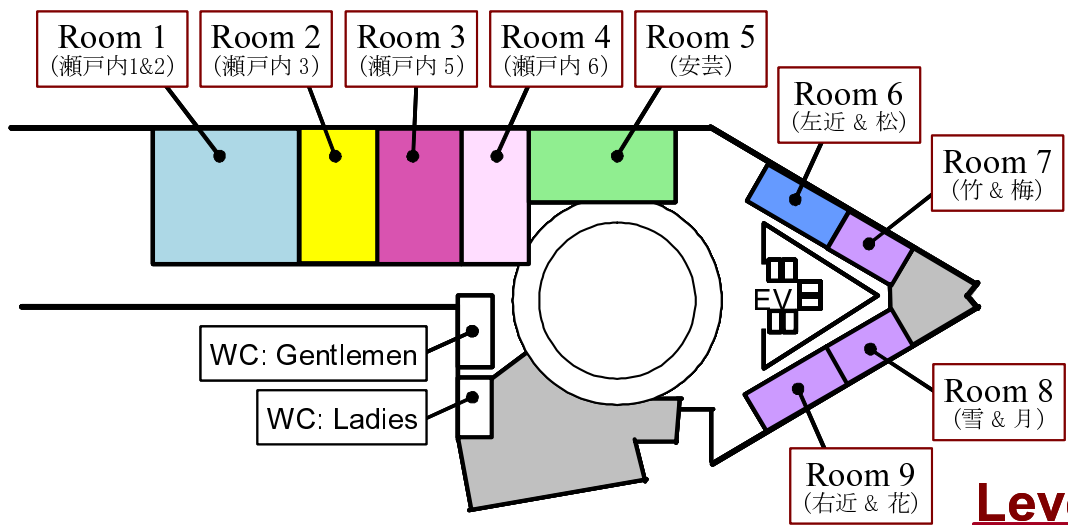
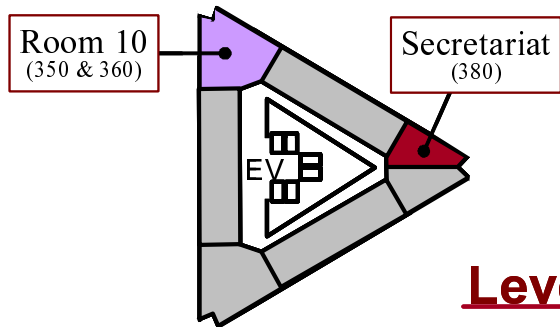
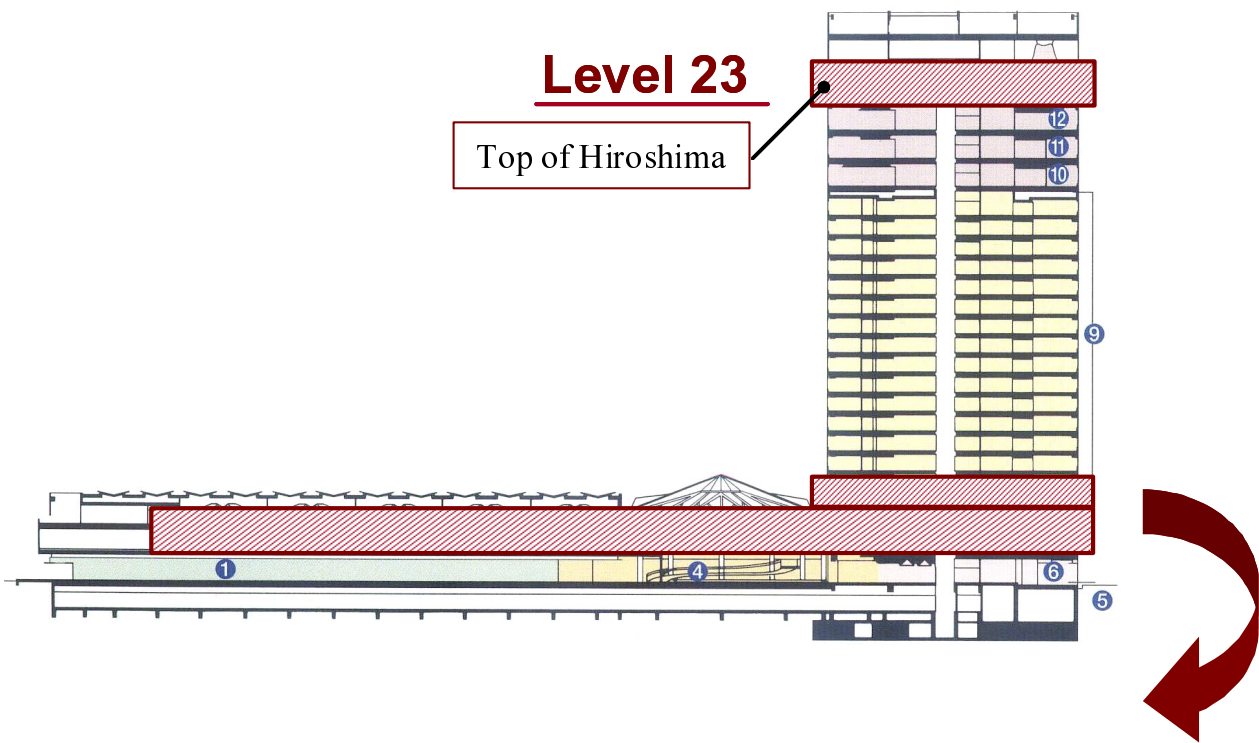
### Wednesday 10th

|               |   |                            |                     |
|---------------|---|----------------------------|---------------------|
| 09.30 - 10.30 | <b>Invited speaker: Wolfgang Nejdl</b> [Room 1]             |                            | Exhibition [Room 5] |
| 10.30 - 11.00 | Coffee Break [Room 5]                                       |                            |                     |
| 11.00 - 12.30 | 7: Ontologies [Room 1]                                      | 8: Inference [Room 2]      |                     |
| 12.30 - 14.00 | Lunch [Top of Hiroshima, Level 23]                          |                            |                     |
| 14.00 - 15.30 | 9: Data Semantics [Room 1]                                  | 10: SW Services [Room 2]   |                     |
| 15.30 - 16.00 | Tea Break [Room 5]  |                            |                     |
| 16.00 - 17.00 | 11: Searching & Querying [Room 1]                           | 12: SW Middleware [Room 2] |                     |
| 17.00 - 18.30 | <b>2nd half of Demos &amp; Posters viewing</b> [Room 5 & 6] |                            |                     |
| 19.00 -       | <b>Banquet</b> [Room 3 & 4]                                 |                            |                     |

### Thursday 11th

|               |  |                                    |                           |
|---------------|--|------------------------------------|---------------------------|
| 09.00 - 10.00 | <b>Invited speaker: Marie-Christine Rousset</b> [Room 1] |                                    |                           |
| 10.00 - 10.30 | Coffee Break [Room 4]                                    |                                    |                           |
| 10.30 - 12.00 | 13: Ontologies [Room 1]                                  | 14: P2P Systems [Room 2]           | 15: Industrial 1 [Room 5] |
| 12.00 - 12.30 | <b>Semantic Web Challenge Award</b> [Room 1]             |                                    |                           |
| 12.30 - 14.00 | Lunch [Top of Hiroshima, Level 23]                       |                                    |                           |
| 14.00 - 15.30 | 16: Data Semantics [Room 1]                              | 17: SW Services [Room 2]           | 18: Industrial 2 [Room 5] |
| 15.30 - 16.00 | Tea Break [Room 4]                                       |                                    |                           |
| 16.00 - 17.00 | 19: User Interfaces & Visualization [Room 1]             | 20: Middleware and Agents [Room 2] | 21: Industrial 3 [Room 5] |
| 17.00 - 17.15 | <b>Closing Ceremony</b> [Room 1]                         |                                    |                           |

**ROOM ARRANGEMENT**



Hiroshima Prince Hotel  
 23-1, Motoujina, Minami, Hiroshima, Hiroshima, 734-8543 Japan  
 Phone: +81 82 256 1111 Facsimile: +81 82 256 1134  
<http://www.princehotelsjapan.com/hiroshimaprincehotel/>

## TECHNICAL PROGRAM

### Tuesday 9th

|   |  |                    |
|---|--|--------------------|
| Opening Ceremony  | 09.00-09.30  | [Room 1]           |
| Invited speaker: <b>Edward Feigenbaum</b><br><i>The Semantic Web Story -- It's already 2004. Where are we?</i>  | 09.30-10.30 [chair: F. van Harmelen]   | [Room 1]           |
| Coffee Break  | 10.30-11.00  | [Room 4]           |
| <b>Session 1: Integration &amp; Interoperability, Tuesday 9th</b>   | 11.00-12.30 [chair: M.-C. Rousset]   | [Room 1]           |
| An Extensible Directory Enabling Efficient Semantic Web Service Integration                                     | Ion Constantinescu, Walter Binder, Boi Faltings  |                    |
| Opening Up Magpie via Semantic Services   | Martin Dzbor, Enrico Motta, John Domingue  |                    |
| Working with Multiple Ontologies on the Semantic Web  | Bernardo Cuenca Grau, Bijan Parsia, Evren Sirin  |                    |
| <b>Session 2: Searching &amp; Querying, Tuesday 9th</b>   | 11.00-12.30 [chair: R. Studer]   | [Room 2]           |
| A Comparison of RDF Query Languages   | Peter Haase, Jeen Broekstra, Andreas Eberhart, Raphael Volz  |                    |
| Generating On the Fly Queries for the Semantic Web: The ICS-FORTH Graphical RQL Interface (GRQL)                | Nikos Athanasis, Vassilis Christophides, Dimitris Kotzinos   |                    |
| Information Retrieval Support for Ontology Construction and Use   | Willem van Hage, Maarten de Rijke, Maarten Marx  |                    |
| Lunch   | 12.30-14.00  | [Top of Hiroshima] |
| <b>Session 3: SW Services, Tuesday 9th</b>  | 14.00-15.30 [chair: K. Sycara]   | [Room 1]           |
| A Conceptual Architecture for Semantic Web Services   | Chris Preist   |                    |
| Applying KAoS Services to Ensure Policy Compliance for Semantic Web Services Workflow Composition and Enactment | Andrzej Uszok, Jeff M. Bradshaw, Renia Jeffers, Austin Tate, Jeff Dalton   |                    |
| Applying Semantic Web Services to Bioinformatics: Experiences Gained, Lessons Learnt                            | Phillip Lord, Sean Bechhofer, Mark Wilkinson, Gary Schiltz, Damian Gessler, Duncan Hull, Carole Goble, Lincoln Stein |                    |
| <b>Session 4: User Interfaces &amp; Visual., Tuesday 9th</b>  | 14.00-15.30 [chair: T. Ishida]   | [Room 2]           |
| OntoTrack: Combining Browsing and Editing with Reasoning and Explaining for OWL Lite Ontologies                 | Thorsten Liebig, Olaf Noppens  |                    |
| The Protégé OWL Plugin: An Open Development Environment for Semantic Web Applications                           | Holger Knublauch, Ray Fergerson, Natalya F. Noy, Mark A. Musen   |                    |
| Tracking Changes During Ontology Evolution  | Natalya F. Noy, Sandhya Kunnatur, Michel Klein, Mark A. Musen  |                    |
| Tea Break   | 15.30-16.00  | [Room 4]           |
| <b>Session 5: SW Mining, Tuesday 9th</b>  | 16.00-17.00 [chair: H. Takeda]   | [Room 1]           |
| From Tables to Frames   | Aleksander Pivk, Philipp Cimiano, York Sure  |                    |
| Learning Meta-Descriptions of the FOAF Network  | Gunnar Astrand Grimnes, Pete Edwards, Alun Preece  |                    |
| <b>Session 6: Large Scale Knowledge Mgmt, Tuesday 9th</b>   | 16.00-17.00 [chair: J. Euzenat]  | [Room 2]           |
| An Evaluation of Knowledge Base Systems for Large OWL Datasets  | Yuanbo Guo, Zhengxiang Pan, Jeff Heflin  |                    |
| Structure-Based Partitioning of Large Concept Hiererachies  | Heiner Stuckenschmidt, Michel Klein  |                    |
| Posters & 1st half of Demos with Drinks & Snacks  | 17.00-18.30  | [Room 5 & 6]       |

## Wednesday 10th

|   |  |                       |                    |
|---|--|-----------------------|--------------------|
| Invited speaker: <b>Wolfgang Nejdl</b><br><i>How to Build Google2Google - An (Incomplete) Recipe --</i> | 09.30-10.30  | [chair: S. McIlraith] | [Room 1]           |
| Coffee Break  | 10.30-11.00  |                       | [Room 5]           |
| Exhibition, Wednesday 10th  | 10.30-   |                       | [Room 5]           |
| <b>Session 7: Ontologies, Wednesday 10th</b>  | 11.00-12.30  | [chair: G. Schreiber] | [Room 1]           |
| QOM - Quick Ontology Mapping  | Marc Ehrig, Steffen Staab  |                       |                    |
| Specifying Ontology Views by Traversal  | Natalya F. Noy, Mark A. Musen  |                       |                    |
| Towards a Symptom Ontology for Semantic Web Applications  | Kenneth Baclawski, Christopher Matheus, Mieczyslaw Kokar, Jerzy Letkowski, Paul Kogut  |                       |                    |
| <b>Session 8: Inference, Wednesday 10th</b>   | 11.00-12.30  | [chair: E. Motta]     | [Room 2]           |
| Inferring Data Transformation Rules to Integrate Semantic Web Services                                  | Bruce Spencer, Sandy Liu   |                       |                    |
| Knowledge-Intensive Induction of Terminologies from Metadata  | Floriana Esposito, Nicola Fanizzi, Luigi Iannone, Ignazio Palmisano, Giovanni Semeraro |                       |                    |
| Using Vampire to Reason with OWL  | Dmitry Tsarkov, Alexandre Riazanov, Sean Bechhofer, Ian Horrocks                       |                       |                    |
| Lunch   | 12.30-14.00  |                       | [Top of Hiroshima] |
| <b>Session 9: Data Semantics, Wednesday 10th</b>  | 14.00-15.30  | [chair: N. Noy]       | [Room 1]           |
| A Method for Converting Thesauri to RDF/OWL   | Mark van Assem, Maarten R. Menken, Guus Schreiber, Jan Wielemaker, Bob Wielinga        |                       |                    |
| Contexts for the Semantic Web   | Ramanathan Guha, Rob McCool, Richard Fikes   |                       |                    |
| Bipartite Graphs as Intermediate Model for RDF  | Jonathan Hayes, Claudio Gutierrez  |                       |                    |
| <b>Session 10: SW Services, Wednesday 10th</b>  | 14.00-15.30  | [chair: B. Parsia]    | [Room 2]           |
| ASSAM: A Tool for Semi-Automatically Annotating Web Services  | Andreas Heß, Eddie Johnston, Nicholas Kushmerick                                       |                       |                    |
| Automated Composition of Semantic Web Services into Executable Processes                                | Marco Pistore, Paolo Traverso  |                       |                    |
| Automating Scientific Experiments on the Semantic Grid  | Shalil Majithia, David Walker, Alex Gray   |                       |                    |
| Tea Break   | 15.30-16.00  |                       | [Room 5]           |
| <b>Session 11: Searching &amp; Querying, Wednesday 10th</b>   | 16.00-17.00  | [chair: A. Rector]    | [Room 1]           |
| Query Answering for OWL-DL with Rules   | Boris Motik, Ulrike Sattler, Rudi Studer   |                       |                    |
| Rules-By-Example --- a Novel Approach to Semantic Indexing and Querying of Images                       | Suzanne Little, Jane Hunter  |                       |                    |
| <b>Session 12: SW Middleware, Wednesday 10th</b>  | 16.00-17.00  | [chair: F. McCabe]    | [Room 2]           |
| A Semantic Web Resource Protocol: XPointer and HTTP   | Kendall Clark, Bijan Parsia, Bryan Thompson  |                       |                    |
| Metadata-Driven Personal Knowledge Publishing   | Ikki Ohmukai, Hideaki Takeda, Masahiro Hamasaki, Kosuke Numa, Shin Adachi              |                       |                    |
| 2nd half of Demos & Posters viewing   | 17.00-18.30  |                       | [Room 5 & 6]       |
| Banquet   | 19.00-   |                       | [Room 3 & 4]       |

## Thursday 11th

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|--|--|--------------------|
| Invited speaker: <b>Marie-Christine Rousset</b><br><i>Small Can be Beautiful in the Semantic Web</i> | 09.00-10.00 [chair: D. Plexousakis]  | [Room 1]           |
| Coffee Break   | 10.00-10.30  | [Room 4]           |
| <b>Session 13: Ontologies, Thursday 11th</b>   | 10.30-12.00 [chair: M. Musen]  | [Room 1]           |
| An API for Ontology Alignment  | Jérôme Euzenat   |                    |
| Automatic Generation of Ontology for Scholarly Semantic Web  | Thanh Tho Quan, Siu Cheung Hui, A. C. M. Fong, Tru Hoang Cao   |                    |
| Patching Syntax in OWL Ontologies  | Sean Bechhofer, Raphael Volz   |                    |
| <b>Session 14: P2P Systems, Thursday 11th</b>  | 10.30-12.00 [chair: S. Decker]   | [Room 2]           |
| Bibster --- A Semantics-Based Bibliographic Peer-to-Peer System                                      | Peter Haase, Jeen Broekstra, Marc Ehrig, Maarten Menken, Peter Mika, Michal Plechawski, Pawel Pyszlak, Björn Schnizler, Ronny Siebes, Steffen Staab, Christoph Tempich |                    |
| GridVine: Building Internet-Scale Semantic Overlay Networks  | Karl Aberer, Philippe Cudré-Mauroux, Manfred Hauswirth, Tim van Pelt   |                    |
| Top-k Query Evaluation for Schema-Based Peer-to-Peer Networks  | Wolfgang Nejdl, Wolf Siberski, Uwe Thaden, Wolf-Tilo Balke   |                    |
| <b>Session 15: Industrial 1, Thursday 11th</b>   | 10.30-12.00 [chair: J. Akahani]  | [Room 5]           |
| Applying Semantic Web Technology to the Life Cycle Support of Complex Engineering Assets             | David Price, Rob Bodington   |                    |
| ORIENT: Integrate Ontology Engineering into Industry Tooling Environment                             | Lei Zhang, Yong Yu, Jing Lu, ChenXi Lin, KeWei Tu, MingChuan Guo, GuoTong Xie, Zhong Su, Yue Pan   |                    |
| <b>Semantic Web Challenge Award</b>  | 12.00-12.30  | [Room 1]           |
| Lunch  | 12.30-14.00  | [Top of Hiroshima] |
| <b>Session 16: Data Semantics, Thursday 11th</b>   | 14.00-15.30 [chair: I. Horrocks]   | [Room 1]           |
| A Model Theoretic Semantics for Ontology Versioning  | Jeff Heflin, Zhengxiang Pan  |                    |
| Extending the RDFS Entailment Lemma  | Herman J. ter Horst  |                    |
| Using Semantic Web Technologies for Representing e-Science Provenance                                | Jun Zhao, Chris Wroe, Carole Goble, Robert Stevens, Dennis Quan, Mark Greenwood  |                    |
| <b>Session 17: SW Services, Thursday 11th</b>  | 14.00-15.30 [chair: D. Martin]   | [Room 2]           |
| From Software APIs to Web Service Ontologies: a Semi-Automatic Extraction Method                     | Marta Sabou  |                    |
| Information Gathering During Planning for Web Service Composition                                    | Ugur Kuter, Evren Sirin, Dana Nau, Bijan Parsia, James Hendler   |                    |
| Semantic Web Service Interaction Protocols: An Ontological Approach                                  | Ronald Ashri, Grit Denker, Darren Marvin, Mike Surridge, Terry Payne   |                    |
| <b>Session 18: Industrial 2, Thursday 11th</b>   | 14.00-15.30 [chair: J. Carroll]  | [Room 5]           |
| OntoView - A Tool for Creating Semantic Web Portals  | Eetu Mäkelä, Eero Hyvönen, Sampa Saarela, Kim Viljanen   |                    |
| SemanticOrganizer: A Customizable Semantic Repository for Distributed NASA Project Teams             | Richard Keller, Daniel Berrios, Robert Carvalho, David Hall, Stephen Rich, Ian Sturken, Keith Swanson, Shawn Wolfe   |                    |
| Public Deployment of Semantic Service Matchmaker with UDDI Business Registry                         | Takahiro Kawamura, Jacques-Albert De Blasio, Tetsuo Hasegawa, Massimo Paolucci, Katia Sycara   |                    |



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|--|--|----------|
| Tea Break  | 15.30-16.00  | [Room 4] |
| <b>Session 19: User Interfaces &amp; Visual., Thursday 11th</b>      | 16.00-17.00 [chair: G. Denker]   | [Room 1] |
| Visual Modeling of OWL DL Ontologies Using UML                       | Sara Brockmans, Raphael Volz, Andreas Eberhart, Peter Löffler  |          |
| What Would It Mean to Blog on the Semantic Web?                      | David Karger, Dennis Quan  |          |
| <b>Session 20: Middleware and Agents, Thursday 11th</b>              | 16.00-17.00 [chair: J. Hefflin]  | [Room 2] |
| The Specification of Agent Behavior by Ordinary People: A Case Study | Luke McDowell, Oren Etzioni, Alon Halevy   |          |
| On the Emergent Semantic Web and Overlooked Issues                   | Yannis Kalfoglou, Harith Alani, Marco Schorlemmer, Chris Walton  |          |
| <b>Session 21: Industrial 3, Thursday 11th</b>                       | 16.00-17.00 [chair: D. Allemang]   | [Room 5] |
| Querying Real World Services through the Semantic Web                | Kaoru Hiramatsu, Jun-ichi Akahani, Tetsuji Satoh   |          |
| SWS for Financial Overdrawn Alerting                                 | José Manuel López-Cobo, Silvestre Losada, Oscar Corcho, Richard Bejamins, Marcos Niño, Jesús Contreras |          |
| Closing Ceremony   | 17.00-17.15  | [Room 1] |

- [01] *Introducing the Gnowsiss Semantic Desktop*  
Leo Sauermann and Sven Schwarz
- [02] *Integrated Visualization for Semantic Web*  
Ing-Xiang Chen, Chun-Lin Fan, Pang-Hsiang Lo, Li-Chia Kuo and Cheng-Zen Yang
- [03] *D2RQ – Treating Non-RDF Databases as Virtual RDF Graphs*  
Christian Bizer and Andy Seaborne
- [04] *Describing Data Sources Semantically for Facilitating Efficient Creation of OLAP Cubes*  
Santtu Toivonen and Tapio Niemi and
- [05] *Towards Semantic Web-Based Yellow Page Directory Services*  
Mikko Laukkanen, Kim Viljanen, Mikko Apiola, Petri Lindgren, Eetu Mäkelä, Samppa Saarela and Eero Hyvönen
- [06] *Building an Ontology for NEWS Applications*  
Norberto Fernández-García and Luis Sánchez-Fernández
- [07] *Educational Topic Maps*  
Darina Dicheva and Christo Dichev
- [08] *Description of an Instructional Ontology and its Application in Web Services for Education*  
Carsten Ullrich
- [09] *Mining for Content Re-Use and Exchange -- Solutions and Problems*  
Agathe Merceron, Carlos Oliveira, Michel Scholl and Carsten Ullrich
- [10] *Semantic Access to Graphical Web Ressources for Blind User*  
Martin Lorenz and Mirko Horstmann
- [11] *Construction of Condensed Thesaurus for Building Radiology Ontology*  
Seung-Bin Han and Jinwook Choi
- [12] *Semantic Web Applications based on Physical State Model of Products*  
Noriyuki Matsuda, Michiyasu Hiramatsu, Hirokazu Taki, Satoshi Hori and Norihiro Abe
- [13] *An Ontological Framework for Semantic Description of Devices*  
Ayomi Bandara, Terry Payne, David Roure and Gary Clemo
- [14] *Multi-step Media Adaptation with Semantic Web Services*  
Peter Soetens, Matthias De Geyter and Stijn Decneut
- [15] *How to Build An Adaptive Web Site: A Framework for User Adaptation*  
Daisuke Kanjo, Yukiko Kawai and Katsumi Tanaka
- [16] *A SW-based Framework for Disclosure of Organizational Knowledge to the Outside World*  
Yohei Tanaka, Yusuke Hayashi, Masataka Takeuchi, Mitsuru Ikeda and Riichiro Mizoguchi
- [17] *Egocentric Search based on RSS*  
Kosuke Numa, Ikki Ohmukai, Masahiro Hamasaki and Hideaki Takeda
- [18] *Balog : Location-based Information Aggregation System*  
Hiroki Uematsu, Kosuke Numa, Tetsuro Tokunaga, Ikki Ohmukai and Hideaki Takeda
- [19] *Detecting and Analyzing Blog Community*  
Tomoya Taniguchi, Yutaka Matsuo, Koiti Hasida and Mitsuru Ishizuka
- [20] *Context-Aware Support for Communities of Practice*  
Luiz Olavo Bonino da Silva Santos, Renata Silva Souza Guizzardi, Gerd Wagner, Marten van Sinderen, Luís Ferreira Pires, José Gonçalves Pereira Filho and Dimitri Konstantas
- [21] *Open Ontologies and Open Knowledge Bases for Modeling the Social Layer of the Semantic Web*  
Matthias Nickles, Tina Froehner and Gerhard Weiss
- [22] *Metadata Description for Analyzing Web Social Network in Academic Communities*  
Takeru Miki, Saeko Nomura and Toru Ishida
- [23] *Sneachta and the PUII-The Semantic Social Network Portal*  
Marco Neumann, Ciaran MacDonaill, John Breslin, Ina O' Murchu, Stefan Decker and Eamonn McQuade

- [24] *Towards a Semantic "Myportal"*  
Haibo Yu, Tsunenori Mine and Makoto Amamiya
- [25] *Advanced Design of Semantic Web Portal: ODESeW2*  
Asuncion Gomez-Perez and Angel Lopez-Cima
- [26] *Towards a Semantic Wiki Wiki Web*  
Roberto Tazzoli, Paolo Castagna and Stefano Emilio Campanini
- [27] *OASIS – A New Tool for the Transformation of XML Knowledge Resources into OWL*  
Pavel Smrž, Martin Povolný and Anna Sinopalnikova
- [28] *Round-tripping between XML and RDF*  
Steve Battle
- [29] *LixtoForAll: Consumer-level Semantic Web-Squeezing and Aggregation*  
Wolfgang Slany
- [30] *Keyword Extraction from the Web for Creation of Person Metadata*  
Junichiro Mori, Yutaka Matsuo, Mitsuru Ishizuka and Boi Faltings
- [31] *Building Phylogenetic Lexical Ontologies*  
Enrique Alfonseca
- [32] *Automatic Inference of Word Meaning using Phonosemantic Patterns*  
Maria Ruiz-Casado, Enrique Alfonseca and Pablo Castells
- [33] *Requirements for Ontology Indexed Knowledge Resources: Clarifying the relation of Universals, Prototypes, and Kinds of Metadata*  
Alan Rector and Robert Stevens
- [34] *Web Explanations for Semantic Heterogeneity Discovery*  
Pavel Shvaiko, Fausto Giunchiglia, Paulo Pinheiro da Silva and Deborah L. McGuinness
- [35] *Ontology-Driven Knowledge Integration from Heterogeneous Sources for Operational Decision Making Support*  
Alexander Smirnov, Michael Pashkin, Nikolai Chilov, Tatiana Levashova and Andrew Krizhanovsky
- [36] *DODDLE-OWL: On-the-fly Ontology Construction with Ontology Quality Management*  
Takeshi Morita, Yoshihiro Shigeta, Naoki Sugiura, Naoki Fukuta, Noriaki Izumi and Takahira Yamaguchi
- [37] *Ontology Language Extensions to Support Collaborative Ontology Building*  
Jie Bao and Vasant Honavar
- [38] *A Web Based Platform for Collaborative Ontology Management*  
Sören Auer
- [39] *Towards Ontological Context Mediation for Semantic Web Database Integration: Translating COIN Ontologies into OWL*  
Sumit Bhansali, Benjamin Groszof and Stuart Madnick
- [40] *WSIRD: Web Services Integration via Rules for Data Transformation*  
Sandy Liu and Bruce Spencer
- [41] *WSMX – An Architecture for Semantic Web Service Discovery, Mediation and Invocation*  
Matthew Moran and Adrian Mocan
- [42] *Semantic Web Fred*  
Michael Stollberg, Reinhold Herzog and Peter Zugmann
- [43] *Jacinta: A Mediator Agent for Human-Agent Interaction in Semantic Web Services*  
Mariano Rico and Pablo Castells
- [44] *The OWL-S Java API*  
Evren Sirin and Bijan Parsia
- [45] *Pellet: An OWL DL Reasoner*  
Bijan Parsia and Evren Sirin
- [46] *Hypermedia Inspired Ontology Engineering Environment: SWOOP*  
Aditya Kalyanpur, Evren Sirin, Bijan Parsia and James Hendler
- [47] *Enterprise Semantic Web Solutions*  
Jeffrey T. Pollock
- [48] *A Framework for Ontology-based Authoring Environments*  
Edgard Costa Oliveira, Frank van Harmelen and Mamede Lima-Marques

## SEMANTIC WEB CHALLENGE

Tuesday 9th

17.00-18.30

[Room 5 & 6]

| Project name  | URI   | Name                  | Affiliation   |
|---|---|-----------------------|---|
| <i>DBin</i>   | <a href="http://dbin.org/">http://dbin.org/</a>   | Giovanni Tummarello   | Università Politecnica delle Marche (Ancona, Italy)             |
| <i>MusiDB</i>   | <a href="http://www.cs.vu.nl/~rstegers/iwal/">http://www.cs.vu.nl/~rstegers/iwal/</a>                     | Heiner Stuckenschmidt | Vrije Universiteit Amsterdam                                    |
| <i>Semantic Organizer</i>   | <a href="http://sciencedesk.arc.nasa.gov/">http://sciencedesk.arc.nasa.gov/</a>                           | Richard Keller        | NASA/Ames Research Center                                       |
| <i>Platypus Wiki</i>  | <a href="http://platypuswiki.sourceforge.net/">http://platypuswiki.sourceforge.net/</a>                   | Paolo Castagna        | Free Software   |
| <i>MuseumFinland</i>  | <a href="http://www.cs.helsinki.fi/group/seco/museums/">http://www.cs.helsinki.fi/group/seco/museums/</a> | Eero Hyvönen          | University of Helsinki and HIIT                                 |
| <i>pOWL - Semantic Web Development Platform</i>                   | <a href="http://powl.sourceforge.net/swc/">http://powl.sourceforge.net/swc/</a>                           | Sören Auer            | University of Leipzig   |
| <i>Semantic Portal on International Affairs</i>                   | <a href="http://elcano.isoco.net/">http://elcano.isoco.net/</a>   | Jesus Contreras       | Intelligent Software Components S.A. (iSOCO)                    |
| <i>Flink</i>  | <a href="http://prauw.cs.vu.nl:8080/flink/">http://prauw.cs.vu.nl:8080/flink/</a>                         | Peter Mika            | Free University, Amsterdam                                      |
| <i>Bibster</i>  | <a href="http://bibster.semanticweb.org/">http://bibster.semanticweb.org/</a>                             | Peter Haase           | AIFB, University of Karlsruhe                                   |
| <i>Annotea shared bookmark</i>                                    | <a href="http://www.annotea.org/mozilla/ubi.html">http://www.annotea.org/mozilla/ubi.html</a>             | Marja-Riitta Koivunen | Annotea   |
| <i>GOHSE</i>  | <a href="http://www.cohse.man.ac.uk/gohse/">http://www.cohse.man.ac.uk/gohse/</a>                         | Sean Bechhofer        | University of Manchester  |
| <i>Swoogle: A Metadata and Search Engine for the Semantic Web</i> | <a href="http://swoogle.umbc.edu/">http://swoogle.umbc.edu/</a>   | Li Ding               | Department of Computer Science and Electrical Engineering, UMBC |

Tuesday 9th

17.00-18.30

[Room 5 & 6]

- [01] *Overcoming the Tyranny of the Majority in Social Information Filtering Systems*  
Kazuhiro Kitagawa, Fumihiko Kato, and Nobuo Saito
- [02] *RDF(S) Manipulation, Storage and Querying using Sesame*  
Jeen Broekstra and Arjohn Kampman
- [03] *Annotea shared bookmarks: Semantic Web at your fingertips*  
Marja-Riitta Koivunen
- [04] *PARIP Explorer - Researching the Researchers*  
S Price, A A Piccini, S Agarwal, B Kershaw, B Joyner, and L Miller
- [05] *Intelligent Product Information Search Framework Based on the Semantic Web*  
Wooju Kim, Dae Woo Choi, and Sang-un Park
- [06] *Environmental Health News Building an on-line news portal using Semantic Web technologies*  
Cormac Twomey and Todd Koym
- [07] *Learning path creation to achieve learner;s goal for Web Based Training using RDF*  
Noritada Shimizu, Junichi Nakamura, Takashi Hattori, and Tatsuya Hagino
- [08] *The Practical Application of Semantic Web Technologies for Situation Awareness*  
Christopher J. Matheus, Mitch M. Kokar, Kenneth Baclawski, Jurek Letkowski and Catherine Call
- [09] *Protégé OWL Plugin Demo*  
Holger Knublauch, Natalya F. Noy, Mark A. Musen
- [10] *Bringing Discussion to Documents for the Creation of Richer Metadata*  
Michihiro Yamamoto and Ng S. T. Chong
- [11] *OntoLT Version 1.0: Middleware for Ontology Extraction from Text*  
Paul Buitelaar, Michael Sintek
- [12] *Automatic Semantic Annotation with KIM*  
Atanas Kiryakov, Borislav Popov, Dimitar Manov, Damyan Ognyanoff, Rosen Marinov and Ivan Terziev
- [13] *Advanced search and browsing in digital libraries*  
Sebastian R. Kruk
- [14] *RDF and Topic Maps Interoperability in Practice*  
Lars Marius Garshol
- [15] *Xcerpt and visXcerpt: Twin Query Languages for the Semantic Web*  
Sacha Berger, Francois Bry, Oliver Bolzer, Tim Furche, Sebastian Schaffert, and Christoph Wieser
- [41] *OntoSelect: A Dynamic Ontology Library with Support for Ontology Selection*  
Paul Buitelaar and Thomas Eigner
- [42] *Gnowsis Semantic Desktop*  
Leo Sauermann

Wednesday 10th

17.00-18.30

[Room 5 & 6]

- [16] *Annotating the Legacy Web with Lixto*  
Robert Baumgartner, Georg Gottlob, Marcus Herzog, and Wolfgang Slany
- [17] *Competence Manager Applying the Semantic Web in Practice*  
Mikko Laukkanen and Heikki Helin
- [18] *OntoTrack A New Ontology Authoring Approach*  
Thorsten Liebig and Olaf Noppens
- [19] *DR-DEVICE: A Defeasible Logic RDF Rule Language*  
Nick Bassiliades, Grigoris Antoniou, and Ioannis Vlahavas

- [20] *MiXA: A Musical Annotation System*  
Katsuhiko Kaji and Katashi Nagao
- [21] *iVAS: Web-based Video Annotation System and its Applications*  
Daisuke Yamamoto and Katashi Nagao
- [22] *TopBraid, a Multi-user Environment for distributed authoring of Ontologies*  
Dean Allemang and Irene Polikoff
- [23] *ASSAM: A Tool for Semi-Automatically Annotating Semantic Web Services*  
Andreas Heß and Nicholas Kushmerick
- [24] *Artificial Memory*  
Lars Ludwig
- [25] *Using Photo Annotations to Produce a Reminiscence Video for Dementia Patients*  
Noriaki Kuwahara, Kazuhiro Kuwabara, Nobuji Tetsutani, and Kiyoshi Yasuda
- [26] *A User Oriented OWL Development Environment Designed to Implement Common Patterns & Minimise Common Errors*  
Matthew Horridge, Alan Rector, Nick Drummond, Holger Knublauch, and Hai Wang
- [27] *Magpie: Supporting Browsing and Navigation on the Semantic Web*  
Martin Dzbor, John Domingue, and Enrico Motta
- [28] *Plug-in for Protégé 2000 which supports Sesame*  
Kalid Askar, Srinivas Vemuri, Yella Siril, and Mark Dougherty
- [29] *Semantic Web Fred Agent Cooperation on the Semantic Web*  
Michael Stollberg, Uwe Keller, Peter Zugmann, and Reinhold Herzog
- [30] *INWISS Integrative Enterprise Knowledge Portal*  
Torsten Priebe
- [31] *OWL-S Editor*  
Grit Denker, Daniel Elenius, and David Martin
- [32] *Integration of KAOs Policy Services with Semantic Web Services*  
Andrzej Uszok, Jeffrey M. Bradshaw, Gianluca Tonti, Renia Jeffers, and Lars E. Olson
- [33] *CODE: A Development Environment for OWL-S Web services*  
Naveen Srinivasan, Massimo Paolucci, and Katia Sycara
- [34] *ODE SWS, A Semantic Web Service Development*  
Asunción Gómez Pérez and Rafael González Cabero and Manuel Lama
- [35] *WS-GEN: A Tool for the Automated Composition of Semantic Web Services*  
M. Pistore, P. Bertoli, E. Cusenza, A. Marconi, and P. Traverso
- [36] *HotBlu - A system for large scale service discovery and composition*  
Ion Constantinescu, Boi Faltings, and Walter Binder
- [37] *SWOOP: A Semantic Web Object-Oriented Programming Tool in Lisp*  
Seiji Koide and Masanori Kawamura
- [38] *WSMX – INFRASTRUCTURE for Execution of Semantic Web Services*  
Michal Zaremba, Armin Haller, Maciej Zaremba, and Matthew Moran
- [39] *SWS for financial overdraft alerts*  
José Manuel López-Cobo, Silvestre Losada, Oscar Corcho, Richard Benjamins, Marcos Niño, and Jesús Contreras
- [40] *IRS-III: A Platform and Infrastructure for Creating WSMO-based Semantic Web Services*  
John Domingue, Liliana Cabral, Farshad Hakimpour, Denilson Sell, and Enrico Motta



*MEMO*



