

# Curriculum Vitae

Axel Florian Polleres

April 23, 2021

**Prof. Dr. Axel Polleres** (<http://www.polleres.net/>) is a full professor working in the area of Data and Knowledge Engineering heading the Institute for Data, Process and Knowledge Management at Vienna University of Economics and Business (WU Wien); he is also a faculty member of the Complexity Science Hub Vienna. Axel obtained his Ph.D. (Computer Science, 2003) and Habilitation (*venia docendi* in the subject of “Information Systems”, 2011) from Vienna University of Technology. He further worked at University Innsbruck (2003-2006), at Universidad Rey Juan Carlos, Madrid (2006-2007), and at the Digital Enterprise Research Institute (DERI) at the National University of Ireland, Galway, (2007-2011) as project leader, lecturer and leader of DERI’s Semantic Search research stream. Between 2011 and 2013 Dr. Polleres worked in Siemens AG’s Corporate Technology Research division as senior research scientist, before joining WU Wien; between Jan 2018 and Jun 2018 Axel also was appointed Visiting Professor at Stanford University, working with the Stanford Center for Biomedical Informatics Research (BMIR). His research focuses on intelligent Data Management, Data Science, Semantic Web and Artificial Intelligence, querying on reasoning about ontologies, logic programming, Web services, knowledge management, Linked Open Data, configuration technologies and their applications. He has worked in several European and national research projects in these areas, has held regular courses at different universities and has supervised students at all levels.

Dr. Polleres has published more than 200 (i.e., over 200 DBLP listed<sup>1</sup>) articles in journals (e.g. in TPLP, JAIR, Artificial Intelligence, ACM TOCL, Applied Ontology, KAIS, IJSWIS, IEEE IS, SWJ, JWS, WWWJ, JoDS, etc.), books, conference proceedings (e.g., in WWW, IJCAI, AAI, ISWC, ESWC, etc.), as workshop contributions and has co-authored a book on Semantic Web Services. His work is highly cited with an h-index of 57.<sup>2</sup> He has co-organised several international conferences and workshops in the areas of logic programming, Semantic Web, data management, Web services and related topics and acts/acted as editorial board member for JWS, SWJ and IJSWIS. He gave invited talks and tutorials at various institutions and at international conferences (including, e.g., the renowned AI Seminars at SRI in Palo Alto or Oxford University), served in programme committees of several international conferences and workshops, such as for instance WWW, IJCAI, AAI, ISWC, PODS, ESWC, AAMAS, etc. He actively contributed to international standardization efforts such as the W3C’s RDF, Rule Interchange Format (RIF), Web Ontology Language (OWL), and RDB2RDF working groups, co-chaired the W3C SPARQL working group, and currently represents WU Wien in W3C’s Advisory Committee.

---

<sup>1</sup>cf. <http://www.informatik.uni-trier.de/~ley/db/indices/a-tree/p/Polleres:Axel.html>

<sup>2</sup>according to Google Scholar (<http://scholar.google.com/citations?user=R-SmVOYAAAAJ&hl=en>)

## 1 Personal Data

Degrees: Dr.techn. (PhD), Diplom-Ingenieur (MSc)  
Date and Place of Birth: 24. March 1974, Vienna, Austria  
Citizenship: Austrian  
Family Status: married to Inga, two daughters  
(Aivi Mai \*2009, Neila Franziska \*2011)  
Current Position: Full Professor  
Institute for Data, Process and Knowledge Management  
Vienna University of Economics & Business  
  
Office and Mailing Address: WU Wien - Building D2, 3rd floor  
Welthandelsplatz 1  
1020 Vienna, Austria  
Office Phone: +43-1-31336-5200  
Office Fax: +43-1-31336-739  
E-mail: axel@polleres.net  
Homepage: <http://www.polleres.net/>

## 2 Education

**March 2011:** Habilitation in “Information Systems”. Thesis:  
“Semantic Web Technologies: From Theory to Practice”  
at Vienna University of Technology,  
external reviewers Prof. Dr. Rudi Studer,  
Prof. Dr. Steffen Staab, Prof. Dr. Claudio Gutierrez.

**October 2003:** PhD in Computer Science (with honors). Thesis:  
“Advances in Answer Set Planning”  
supervised by Prof. Dr. Thomas Eiter,  
second reviewer Prof. Dr. Georg Gottlob.

**June 2001 – September 2003:** Doktoratsstudium, Studienzweig Informatik  
(PhD course in Computer Science)  
at Vienna University of Technology.

**April 2001:** MSc in Computer Science (with honors). Thesis:  
“The DLV<sup>K</sup> System for Planning with Incomplete  
Knowledge”, supervised by Prof. Dr. Thomas Eiter.

**October 1992 – April 2001:** Diploma studies in Computer Science  
at Vienna University of Technology.

**June 1992:** High School graduation (with honors).

**September 1984 – June 1992:** High School Kufstein, Tirol.

**September 1980 – June 1984:** Primary School Langkampfen, Tirol.

### 3 Awards and Honors

- **Stanford University – Distinguished Visiting Austrian Chair Professorship**, awarded by the The Freeman Spogli Institute of International Studies and its Europe Center at Stanford University and the Austrian University Rectors’ Conference, January 2018 – June 2018, cf. [http://tec.fsi.stanford.edu/docs/distinguished\\_visiting\\_austrian\\_chair\\_professors](http://tec.fsi.stanford.edu/docs/distinguished_visiting_austrian_chair_professors)
- **OBD-2015: Best Paper Award** for the paper “*Quality assessment & Evolution of Open Data Portals*” co-authored with S. Neumaier, and J. Umbrich. This work emerged from a master thesis that I supervised in the course of the OpenData@WU project.
- **RR2010: Best Paper Award** for the paper “*Redundancy Elimination on RDF Graphs in the Presence of Rules, Constraints, and Queries*” co-authored with R. Pichler, S. Skritek and S. Woltran. This work emerged from a collaboration between DERI and TU Vienna.
- **ISWC2009 In-Use Track: Best Paper Award** for the paper “*Produce and consume Linked Data with Drupal!*” co-authored with S. Corlosquet, R. Delbru, T. Clark, A. Polleres, and S. Decker. This work emerged from a master thesis that I supervised.
- **Juan de la Cierva 2005**, Ministerio de Educación y Ciencia, Spain. Postdoctoral research fellowship grant, hosted at the Rey Juan Carlos University, Madrid, Spain.
- **OCG-Förderpreis 2002**: Award for outstanding master theses in the field of Computer Science by the Austrian Computer Society.

Additional nominations for best paper awards: **ESWC2008** (nomination for best paper award) , **ISWC2011** (nomination for best paper award), **ISWC2016** (nomination for best student paper award), **CeDEM2017** (nominated for best paper award).

Awards for outstanding theses that I supervised:

- Julian Reindorf (MSc): **TALENTA-Award 2018** for outstanding Master theses at Vienna University of Economics and Business
- Christian Bruck (BSc): **TALENTA-Award 2018** for outstanding Bachelor theses at Vienna University of Economics and Business, as well as **UBIT thesis award 2018** (Fachgruppe Unternehmensberater und IT Fachgruppe Wien der Wirtschaftskammer)
- Martin Beno (BSc): **TALENTA-Award 2017** for outstanding Bachelor theses at Vienna University of Economics and Business
- Sebastian Neumairer (MSc): **OCG-Förderpreis 2016** for outstanding master theses in the field of Computer Science by the Austrian Computer Society).

## 4 Career

### **January 2018 – June 2018**

Visiting Professor at The Europe Center of the Freeman Spogli Institute at Stanford University, California, USA.

### **since January 2017**

faculty member of the Complexity Science Hub Vienna.

### **since January 2016**

Head of Institute at the Institute for Data, Process and Knowledge Management at Vienna University of Economics and Business (WU Wien).

### **since September 2013**

Full Professor at the Institute for Data, Process and Knowledge Management at Vienna University of Economics and Business (WU Wien).

### **June 2011 – August 2013**

Senior Research Scientist at Siemens Corporate Technology Research, Siemens AG Österreich, Vienna, Austria.

### **March 2010 – June 2011**

Senior Research fellow, continued leader of the “Semantic Search” research stream, as well as leader of the research unit on “Reasoning and Querying (URQ)” at the Digital Enterprise Research Institute (DERI), at the National University of Ireland, Galway.

### **October 2010**

Guest researcher at the South Andean Center for Database Research (Khipu), cf. <http://www.khipu.cl/>, collaborations with Universidad de Chile (Prof. Claudio Gutierrez) and Pontificia Universidad Católica de Chile (Prof. Marcelo Arenas) during this stay. This exchange was funded by the EU’s Marie Curie programme under the project “Net<sup>2</sup>”.

### **March 2009 – February 2010**

Promotion to Research Fellow and leader of the “Semantic Search” research stream, as well as leader of the research unit on “Reasoning and Querying (URQ)” at the Digital Enterprise Research Institute (DERI), at the National University of Ireland, Galway.

**April 2007 – February 2009**

Postdoctoral researcher, adjunct lecturer, and project leader at the Digital Enterprise Research Institute (DERI) Galway, led by Prof. Stefan Decker, at the National University of Ireland, Galway.

**February 2006 – May 2007**

Research fellowship at Universidad Rey Juan Carlos, Madrid, under a “Juan de la Cierva” grant by the Spanish ministry of education (MEC).

**October 2003 – April 2006**

Postdoctoral researcher and Lecturer at the Digital Enterprise Research Institute (DERI) Innsbruck, led by Prof. Dieter Fensel at the University of Innsbruck. Management of teaching activities of DERI, involvement in several European Research Projects, Advisory Committee member of the W3C, representing DERI Innsbruck.

**July – August 2005**

Guest researcher at the Knowledge Systems Laboratory (KSL), Stanford University, led by Prof. Dr. Michael Genesereth, at University of Stanford, California, USA. Collaboration with Dr. Charles Petrie during this stay.

**July – September 2004**

Guest researcher at the Digital Enterprise Research Institute (DERI) Galway, led by Prof. Christoph Bussler, at the National University of Ireland, Galway. Collaboration with Prof. Michael Kifer during this stay.

**June 2001 – September 2003**

Research assistant in the project P14781-INF “A Declarative Planning System Based On Logic Programming”, supported by FWF (Austrian Science Funds), at the Institute of Information Systems, Knowledge-Based Systems Group, TU Vienna, led by Prof. Thomas Eiter.

**January 1999 – April 2000**

Student fellow in the project P11580-MAT “Design and Implementation of a Query System for Disjunctive Deductive Databases”, supported by FWF (Austrian Science Funds), at the Institute of Information Systems, Knowledge-Based Systems Group, TU Vienna. The resulting master thesis “The  $DLV^{\mathcal{K}}$  System for Planning with Incomplete Knowledge” has been awarded with the “**OCG-Förderpreis**”, a prize for outstanding master theses in the field of Computer Science by the Austrian Computer Society.

## 5 Teaching Experience

### University Lecture Courses

- Database Systems, Vienna Univ. of Economics & Business (WU Wien), regularly, since winter term 2014/2015.
- Data-oriented System Analysis, Vienna Univ. of Economics & Business (WU Wien), regularly, since winter term 2013/2014.
- Semantic Web Technologies, Vienna University of Technology, winter term 2009/10, summer term 2012, summer term 2013, winter term 2014/15, summer term 2016.
- Emerging Web Media, National University of Ireland, Galway, autumn 2008 autumn 2009, autumn 2010.
- Advanced Studies in IT: Semantic Web, Lecture, National University of Ireland, Galway, spring 2008.
- Recuperación de Información, Universidad Rey Juan Carlos, summer term 2007.
- Lógica y Metodos Avanzados de Razonamiento (together with Dr. habil. David Pearce), Universidad Rey Juan Carlos, winter term 2006/2007.
- Declarative Programming (together with Nao Hirokawa), Leopold Franzens Universität Innsbruck, winter term 2005/2006.
- Introduction to Artificial Intelligence, Leopold Franzens Universität Innsbruck, summer term 2005.
- Introduction to Logic Programming, Leopold Franzens Universität Innsbruck, winter term 2004/2005.
- Telecooperation, Leopold Franzens Universität Innsbruck, summer term 2004, summer term 2005.

### Industry & Non-University Courses

- “Compact Course on Artificial Intelligence” at the Federal Minister for Digital and Economic Affairs of the Republic of Austria (BMDW), in collaboration with WU Executive Academy, December 2019, Vienna, Austria.
- “Data Science Bootcamp” with Raiffeisen Bank International AG (RBI), in collaboration with WU Executive Academy, June 2019, Vienna, Austria.
- Course on “Semantic Web KR and rule languages” at Ontotext Lab, Sirma Group Corp., February 2007, Sofia, Bulgaria.

## University Seminars

- Forschungsseminar Systemanalyse, Vienna Univ. of Economics & Business (WU Wien), regularly, since winter term 2013/2014.
- Web Services (together with Holger Lausen), Leopold Franzens Universität Innsbruck, winter term 2004/2005.

## University Tutorials and Lab course

- Praktikum Semantic Web 2 (together with Dr. Martin Hepp and Dr. Thomas Strang), Leopold Franzens Universität Innsbruck, summer term 2005.
- Praktikum Semantic Web (together with Dr. Ying Ding), Leopold Franzens Universität Innsbruck, winter term 2004/2005.
- Übung Telecooperation, Leopold Franzens Universität Innsbruck, summer term 2004.
- Praktikum Semantic Web (together with Dr. Ying Ding), Leopold Franzens Universität Innsbruck, summer term 2004.
- Übung Logics in Computer Science, Leopold Franzens Universität Innsbruck, summer term 2004.
- Übung Software Engineering I, Leopold Franzens Universität Innsbruck, winter term 2003/2004.

## Selected Supervised Bachelor and Master Theses

- Christian Bruck, “Challenges and opportunities of Data Governance in private and public organizations”, bachelor thesis Vienna University of Economics & Business, October 2017 (awarded with the **TALENTA Award 2018** for outstanding bachelor theses at Vienna University of Economics & Business)..
- Julian Reindorf, “HDT Quads: Compressed Triple Store for Linked Data”, master thesis Vienna University of Economics & Business, September 2017 (awarded with the **TALENTA Award 2018** for outstanding master theses at Vienna University of Economics & Business).
- Martin Beno, “Open Data Hopes and Fears, Determining the barriers of Open Data”, bachelor thesis Vienna University of Economics & Business, July 2016 (awarded with the **TALENTA Award 2016** for outstanding bachelor theses at Vienna University of Economics & Business).
- Stefan Bauer, “Evaluation of Search Engines in the Context of RIS”, master thesis, Vienna University of Economic & Business, April 2016.
- Alexander Wurl, “Formalisms and Tools to Describe and Monitor Engineering Processes” , master thesis, Technische Universität Wien, December 2015.

- Sebastian Neumaier, “*Open Data Quality: Assessment and Evolution of (Meta-)Data Quality in the Open Data Landscape*”, master thesis, Technische Universität Wien, October 2015 (awarded with the **OCG-Förderpreis 2016** for outstanding master theses in the field of Computer Science by the Austrian Computer Society).
- Christoph Martin, “*Predicting Missing Values in the Context of an Open City Data Pipeline*”, master thesis, Vienna University of Economic & Business, January 2015.
- Simon Steyskal, “*Towards an Alternative Approach for Combining Ontology Matchers*”, master thesis, Technische Universität Wien, November 2013.
- Stefan Bischof, “*Implementation and Optimisation of Queries in XSPARQL*”, master thesis, Technische Universität Wien, November 2010.
- Stéphane Corlosquet, “*Bootstrapping the Web of Data with Drupal*”, master thesis, National University of Ireland, Galway, August 2009.
- Gennaro Frazzinaro, “*Implementing and extending SPARQL with DLVHEX*”, tesi di laurea (bachelor thesis), Università della Calabria, October 2007.
- Jan Koeppen, “*Development of a Framework for Semantic Web Applications*”, proyecto fin de carrera (master thesis), Universidad Rey Juan Carlos, September 2007.
- Doris Silbernagl, “*Reasoning with Ontologies – A prototypical implementation of an ontology reasoner based on WSML*”, bachelor thesis, Leopold Franzens Universität Innsbruck, October 2005.
- Thomas Haselwanter, “*WSMX Core - A JMX Microkernel*”, bachelor thesis, Leopold Franzens Universität Innsbruck, October 2005.
- Manuela Weitlaner, “*WIKI-Engines*”, bachelor thesis, Leopold Franzens Universität Innsbruck, April 2005.
- Hannes Tammerle, “*Automated Planning - A survey of the Actual State and the IPC '04*”, bachelor thesis, Leopold Franzens Universität Innsbruck, April 2005.
- Kathrin Prantner, “*Screen Scraper Technology, Comparison, Applications*”, bachelor thesis, Leopold Franzens Universität Innsbruck, April 2005.
- Katharina Siorpaes, “*Development of Web Services including the comparison of the tools JWSDP and Axis*”, bachelor thesis, Leopold Franzens Universität Innsbruck, March 2005.
- Stefan Kirchmair “*Dynamische Webseiten und Kommunikationsmethoden*”, bachelor thesis, Leopold Franzens Universität Innsbruck, September 2004.
- Stefan Kirchmair, “*Entwicklung eines Kommunikationsportals*”, bachelor thesis, Leopold Franzens Universität Innsbruck, September 2004.
- Ejike Uzochukwu, “*Flows in Web Services*”, bachelor thesis, Leopold Franzens Universität Innsbruck, September 2004.



## PhD Supervision and Member in PhD Committees

### Supervised PhD Thesis

#### Ongoing:

- Supervisor of Simon Steyskal, Vienna University of Economics & Business, PhD topic “*Reasoning about Policies and their enforcability*” ongoing (since October 2014), partially funded by the FFG project “SHAPE”.
- Co-Supervisor of Giray Havur (jointly with Dr. Cristina Cabanillas), Vienna University of Economics & Business, PhD topic “*Declarative Reasoning with Answer Set Programming about Business Processes*” ongoing (since October 2014), funded by the FFG project “SHAPE”.
- Supervisor of Amr Azzam, TU Vienna, PhD topic “*Enabling Web-scale Knowledge Graphs Querying*” ongoing (since February 2018), partially funded by the FFG project “CitySpin”.
- Co-Supervisor of Dawa Chang (jointly with Prof. Christopher Lettl & Dr. Elmar Kiesling), Vienna University of Economics & Business, PhD topic “*Knowledge Graphs as a supporting technology for innovation*” ongoing (since October 2020).
- Supervisor of Bernhard Krabina, Vienna University of Economics & Business, PhD topic “*Public data repositories*” ongoing (since October 2020).
- Supervisor of Robert David, Vienna University of Economics & Business, PhD topic “*Knowledge Graph Analysis and Repair*” ongoing (since November 2020).
- Supervisor of Nicolas Ferranti, Vienna University of Economics & Business, since April 2021.

#### Completed:

- Supervisor of Erwin Filtz (jointly with Dr. Sabrina Kirrana), Vienna University of Economics & Business, “*Knowledge Graphs for Analyzing and Searching Legal Data*”, PhD thesis, partially funded by the FFG project “GraphSense”, as well as by Jubiläumsfonds Wien and by the Austrian Federal Minister for Digital and Economic Affairs (BMDW), April 2021.
- Supervisor of Albin Ahmeti, TU Vienna, “*Updates in the Context of Ontology-Based Data Management*” PhD thesis, funded by TU Vienna PhD School and the WWTF project “SEE”, January 2020.
- Supervisor of Sebastian Neumaier, TU Vienna, “*Semantic Enrichment of Open Data on the Web - Or: How to build an Open Data Knowledge Graph*”, PhD thesis, partially funded by the FFG projects “ADEQUATE” and “Communitdata”, November 2019.

- Supervisor of Svitlana Vakulenko, TU Vienna, “*Knowledge-Based Conversational Search*”, PhD thesis, partially funded by the FFG project “Communitdata”, November 2019.
- Supervisor of Stefan Bischof, TU Vienna, “*Complementary Methods for the Enrichment of Linked Data*” PhD thesis, first year funded by the IRCSET Enterprise Partnership programme (co-funded by Alcatel-Lucent/Bell Labs Ireland in 2012), then funded by WWTF and Siemens AG Österreich, November 2017.
- Supervisor of Jürgen Umbrich, NUI Galway, “*A Hybrid Framework for Querying Linked Data Dynamically*”, PhD thesis, funded by the SFI Líon-2 project, November 2012.
- Supervisor of Nuno Lopes, NUI Galway, “*Integrating Heterogeneous Data by Extending Semantic Web Standards*”, PhD thesis, funded by SFI Líon-2 project, November 2012.
- Supervisor of Ratnesh Sahay, NUI Galway, “*An Ontological Framework for Interoperability of Health Level Seven (HL7) Applications*”, PhD thesis, NUI Galway, May 2012.
- Supervisor of Aidan Hogan, “*Exploiting RDFS and OWL for Integrating Heterogeneous, Large-Scale, Linked Data Corpora*”, PhD thesis, NUI Galway, funded by the IRCSET Embark programme, February 2011.

### PhD Committee memberships

- 
- Committee member: Emilia Kacprzak, “Improving Searchability of Datasets”, PhD thesis, University of Southampton, March 2021.
- Referee: Gianluca Cima, “Abstraction in Ontology-based Data Management”, PhD thesis, Sapienza Università di Roma, November 2020.
- Committee member: Ahmad Alobaid, “Knowledge-Graph-Based Semantic Labeling of Tabular Data”, PhD Thesis, Universidad Politécnica de Madrid, July 2020.
- Committee member: Christian Bors, “Facilitating Data Quality Assessment Utilizing Visual Analytics: Tackling Time, Metrics, Uncertainty, and Provenance”, PhD thesis, Vienna University of Technology, February 2020 (supervisor: Prof. Silvia Miksch).
- External Reviewer/Committee Member: Hoan Nguyen Mau Quoc, “A Scalable Spatio-temporal Query Processing for Linked Sensor Data”, PhD Thesis, National University of Ireland Galway (NUIG), Ireland, 2016 (supervisors: Prof. John Breslin, Dr. Danh Le Phuoc).

- Committee member: Stefan Adelsberger, “A Formal Verification Framework for Object-Based Programming in Agda”, PhD thesis, Vienna University of Economics and Business, July 2018 (supervisor: Prof. Gustaf Neumann).
- External Reviewer/Committee Member: Wouter Beek, “The ‘K’ in ‘Semantic Web’ Stands for ‘Knowledge’”, PhD Thesis, VU Amsterdam, the Netherlands, 2018 (supervisor: Prof. Frank van Harmelen).
- Committee member: Maulik Kamdar, “A Web-Based Integration Framework over Heterogeneous Biomedical Data and Knowledge Sources”, PhD Thesis, Stanford University, June 2018 (supervisor: Prof. Mark Musen).
- Committee member: Feng Tian, “An Information System For Food Safety Monitoring in Supply Chains based on HACCP, Blockchain and Internet of Things”, PhD thesis, Vienna University of Economics and Business, February 2018 (supervisor: Prof. Alfred Taudes).
- External Reviewer/Committee Member: Fadi Maali, “Distributed Dataflow Processing of Large RDF Graphs”, PhD Thesis, National University of Ireland Galway (NUIG), Ireland, 2016 (supervisor: Prof. Stefan Decker).
- External Reviewer: Daniele Dell’Aglio, “On Unified Stream Reasoning”, PhD Thesis, Politecnico di Milano, 2016 (supervisor: Prof. Emanuele Della Valle).
- External Reviewer : Daniel Gerber, “Statistical Extraction of Multilingual Natural Language Patterns for RDF Predicates: Algorithms and Applications”, PhD thesis, Universität Leipzig, February 2016 (supervisors: Prof. Klaus-Peter Fährnich, Dr. Axel-Cyrille Ngonga Ngomo).
- Committee member: José Mora Lopez, “Query Rewriting Optimisation Techniques for Ontology-Based Data Access”, PhD thesis, Universidad Politécnica de Madrid (UPM), Spain, December 2015 (supervisor: Prof. Oscar Corcho).
- Committee member: Fabian Pittke, “Linguistic Refactoring of Business Process Models”, PhD thesis, Vienna University of Economics and Business, November 2015 (supervisor: Prof. Jan Mendling).
- External Reviewer: Yujiao Zhuo, “PAGODa: Pay-as-you-go Ontology Query Answering Using a Datalog Reasoner”, PhD thesis, University of Oxford, October 2015 (supervisors: Prof. Ian Horrocks, Prof. Bernardo Cuenca Grau) .
- External Reviewer/Committee Member: Philipp Stutz, “Scalable Graph Processing with Signal/Collect”, PhD thesis, University of Zürich, Switzerland, May 2015 (supervisor: Prof. Abraham Bernstein).
- External Reviewer/Committee Member: Anna Ryabokon, “KNOWLEDGE-BASED (RE)CONFIGURATION OF COMPLEX PRODUCTS AND SERVICES”, PhD thesis, University of Klagenfurt, Austria, April 2015 (supervisor: Prof. Gerhard Friedrich).

- External Reviewer/Committee Member: Christian Mader, “Supporting Web Vocabulary Development by automated Quality Checks”, PhD thesis, University of Vienna, July 2015 (Prof. Wolfgang Klas).
- External Reviewer/Committee Member: Benedikt Kämpgen, “*Flexible Integration and Efficient Analysis of Multidimensional Datasets from the Web*”, PhD thesis, Karlsruhe Institute of Technology (KIT), Germany, February 2015 (supervisor: Prof. Rudi Studer).
- External Reviewer/Committee Member: Melisachew Wudage Chekol, “*Static Analysis of Semantic Web Queries*”, PhD thesis, Université de Grenoble, France, December 2012 (supervisors: Prof. Jerome Euzenat, Prof. Nabil Layaida).
- Committee member: Ramón Hermoso, “*El concepto de confianza en sistemas organizativos: un enfoque de coordinación para agentes software*”, PhD thesis, Universidad Rey Juan Carlos, Móstoles, Spain, February 2011 (Prof. Sascha Ossowski).
- External reviewer: Renzo Angles, “*Modelos de Base de Datos de Grafo y RDF (Graph Database Models supporting RDF)*”, PhD thesis, Universidad de Chile, Santiago, Chile, August 2009 (Prof. Claudio Gutierrez).
- Committee member: Alberto Fernandez Gíl, “*Descripción, Descubrimiento y Composición de Servicios en Entornos Multiagente Abiertos. Un Enfoque Organizacional*”, PhD thesis, Universidad Rey Juan Carlos, Móstoles, Spain, November 2007 (Prof. Sascha Ossowski).
- Committee member: Rubén Lara Hernandez, “*A Flexible Model for the Semi-Automatic Location of Services*”, PhD thesis, Universidad Autonoma de Madrid, Spain, October 2007 (Prof. Pablo Castells).

### **Habilitation and Appointment Committee memberships**

- Member of the habilitation committee: Antoine Zimmermann, “Interoperability for the Semantic Web: A Loosely Coupled Mediation Approach”, HDR (Habilitation à diriger des recherches) thesis, École Nationale Supérieure des Mines de Saint-Etienne, France, February 2021.
- Member of the habilitation committee: Maria Magdalena Ortiz de la Fuente, Vienna University of Technology, November 2020.
- External reviewer for the appointment committee (Berufungskommission) for the chair “Datenmanagement” at University of Chemnitz, 2020.
- Member of the appointment committee (Berufungskommission) for the chair “Distributed Ledgers and Token Economy” at Vienna University of Economics and Business (WU Wien), 2019.

- External reviewer for the appointment committee (Berufungskommission) for the chair “Business Analytics and Data Science” at University of Graz, 2019.
- External Reviewer in habilitation committee: Axel-Cyrille Ngonga Ngomo, “Link Discovery: Algorithms and Applications”, Habilitaionsschrift, Universität Leipzig, June 2017.
- External Reviewer in habilitation committee: Andreas Harth, “Link Traversal and Reasoning in Dynamic Linked Data Knowledge Bases”, Habilitationsschrift, Karlsruhe Institute of Technology (KIT), Germany, May 2016.
- Chair of the habilitation comittee: Gerhard Wohlgenannt, “Automatisierte Generierung von Wissensmodellen inklusive deren betriebswirtschaftliche Aspekte und Anwendungen”, Habilitationsschrift, Vienna University of Economics & Business, 2016.

### **University Administration, Curriculum and Course Program Development**

- Program director of the Professional MBA Program “Digitalisation & Data Science” at WU Executive Academy, since 2019.
- Program director of the Short Programme “Data Science” at WU Executive Academy, since 2017.
- Program director of the undergraduate specialization (SBWL) “Data Science” within the BSC program of Vienna University of Economics and Business (WU Wien), since 2016.
- Member of the commission for finance and campus management (“Kommission für Finanzen und Campusmanagement”) at Vienna University of Economics and Business (WU Wien), since 2016.
- Member of the task force for teaching evalutaion (“AG Instrument - Evaluierung neu”) at Vienna University of Economics and Business (WU Wien), 2019.

## **6 Research Interests**

- Data & Knowledge Management
- Query Languages
- Nonmonotonic Reasoning
- Logic Programming
- Planning & Configuration
- Web Technologies & Standards

- Semantic Web
- Web Services
- Linked Data

## 7 Activities in the Scientific Community

### 7.1 Project Participations and Funding Acquisition

1. “PROPEL: Propelling the potential of Enterprise Linked Data in Austria” (November 2015 – October 2016), a pilot project, funded by the Austrian Research Promotion Agency (FFG), total 214K €, funding WU: 49K €, *Role*: project partner.
2. “GraphSense:” *Role*: (September 2015 – August 2017), a research project funded by the Austrian Research Promotion Agency (FFG), coordinated by AIT, total budget: 871K €, funding WU: 111K EUR, *Role*: project partner.
3. “ADEQUATE: Analytics & Data Enrichment to improve the QUALiTy of Open Data” (October 2015 – March 2018), a research project funded by the Austrian Research Promotion Agency (FFG) , coordinated by Semantic Web Company, total budget: 521K €, funding WU: 160K EUR, *Role*: project partner.
4. “SHAPE: Safety-critical Human- & dAta-centric Process management in Engineering projects” (October 2014 – March 2017), a research project funded by the Austrian Research Promotion Agency(FFG), coordinated by WU with Siemens as industry partner, total budget: 783K €funding WU: 394K €, *Role*: coordinator.
5. Lise-Meitner postdoc stipend by the Austrian Science Fund (FWF) for Javier Fernandez Garcia (2015-2017), *Role*: mentor.
6. “SEE: SPARQL Evaluation and Extensions”, a project funded within the ICT Call 2012 of the Vienna Science and Technology Fund (WWTF – Wiener Wissenschafts-, Forschungs- und Technologiefonds), in collaboration with TU Vienna as coordinator, project start: Sept. 2012, duration 3 years (total budget 500K €); Joint proposal with Prof. Pichler, TU Vienna. *Role*: collaborator and supervisor of a PhD.
7. “Net<sup>2</sup> – A Network for Enabling Networked Knowledge”, an International Research Staff Exchange Scheme (IRSES) in EU FP7 funded under the Marie Curie programme which will fund research exchanges between international research institutions worldwide (South America, South Africa, China, Europe), 2010–2013, *Role*: coordinator.
8. Government of Ireland PhD Fellowship in Science, Engineering and Technology (IRC-SET/Enterprise Partnership Program) of Stefan Bischof, 2010–2013, *Role*: coordinator/co-supervisor, co-funded by Alcatel-Lucent (the student continued under my supervision now under a PhD grant from Siemens AG Österreich since 2012).

9. Government of Ireland PhD Fellowship in Science, Engineering and Technology (IRCSET/EMBARK) of Philipp Obermeier, 2009–2012, *Role*: coordinator/co-supervisor (together with Prof. Manfred Hauswirth).
10. Government of Ireland Postdoctoral Fellowship in Science, Engineering and Technology (IRCSET/EMPOWER) of Dr. Gergely Lukácsy, 2009–2010, *Role*: coordinator/mentor.
11. SFI CSET project Líon-2 (since January 2009), *Role*: co-PI, leader of the research unit on “Reasoning and Querying (URQ)” , as well as leader of the “Semantic Search” research stream (total budget 15M €, ca. 600K €for URQ).
12. Government of Ireland PhD Fellowship in Science, Engineering and Technology (IRCSET/EMBARK) of Aidan Hogan, 2008–2011, *Role*: coordinator/supervisor.
13. COST Action IC0801, “Agreement Technologies” (since June 2008), Management Committee member, *Role*: WG leader.
14. European IST Specific Targeted Research Project (IST FP6–034718), “inContext: Interaction and Context Based Technologies for Collaborative Teams” (May 2006 – January 2009), *Role*: responsible researcher for DERI Galway.
15. Programa de Cooperación Interuniversitaria e Investigación Científica entre España y los países de Iberoamérica: Research project together with Universidad Simón Bolívar, Caracas, Venezuela, funded by the Spanish Agencia Española de Cooperación Internacional (AECI): “Mecanismos de Optimización y Evaluación para consultar eficientemente la Web Semántica en la Administración Pública Electrónica” (March 2007 – March 2008), *Role* project coordinator (funding: 15.500 €).
16. Research project funded by Universidad Rey Juan Carlos & Comunidad de Madrid (URJC-CM-2006-CET-0300): “Web Semántica para Organizaciones y Servicios (SWOS)”, January 2007– October 2008, *Role* project coordinator (funding: 20.000 €) .
17. European IST Specific Targeted Research Project (IST FP6–027324), “TripCom: Triple Space Communication” (April 2006 – March 2009), *Role*: coordination during proposal phase (Total Budget: 4.75M €, EU funding: 3.65M €), affiliate researcher until end of 2006.
18. European IST Network of Excellence (IST FP6–507482) “Knowledge Web” (January 2004 – January 2007), *Role*: senior researcher 2004–2005, non-funded member since 2006–2007.
19. “BIT (Bolzano – Innsbruck – Trento) Joint School for Information Technology” (since 2003), *Role*: coordinator Innsbruck 2004–2005.
20. FWF Forschungsprojekt (research project funded by the Austrian Science Funds) at the TU Vienna: “An Answer Set Programming Framework for Reactive Planning and Execution Monitoring (P16536-INF)” (October 2003 – October 2006), *Role*: consultancy during project proposal phase 2003.

21. FWF Forschungsprojekt (research project funded by the Austrian Science Funds) at the TU Vienna: “A Declarative Planning System Based On Logic Programming (P14781-INF)”. (2001–2003), *Role*: research assistant 2001–2003.
22. FWF Forschungsprojekt (research project funded by the Austrian Science Funds) at the TU Vienna: “Design and Implementation of a Query System for Disjunctive Deductive Databases (P11580-MAT)”. (1999-2001), *Role*: student fellow 1999–2000.

## 7.2 Selected Talks, Panels, and Tutorials

- Invited Webinar “From Open Data Portals to Open Data-Ecosystems - Experiences and Thoughts on how to proceed from monitoring and analyzing Open Data Portals” in the Series “THE FUTURE OF OPEN DATA PORTALS” organized by the European Open Data Portal, January 2021, see <https://european-data-portal.gitlab.io/future-open-data-portals/webinars/7-axel-polleres/>
- Invited Talk “AI aus Perspektive der Wirtschaftsinformatik” at the IP-Day 2019, September 2019, Wirtschaftsuniversität Wien.
- Keynote “How do Linked Data, Open Data, and Knowledge Graphs interplay?” at the 30th International Conference on Database and Expert Systems Applications - DEXA 2019, August 2019, Linz, Austria.
- Tutor at the International Semantic Web Research Summer School (ISWS), June 30 –July 6, 2019. Bertinoro, Italy
- Invited Talk “The non-existing LOD-Cloud – and how it could be finally (re-)created” at the Mini-Symposium “Contemporary Challenges in Linked Data Research and Practice”, June 2018, VU Amsterdam, NL.
- Invited Talk on “Building and Using an Open Knowledge Graph for and from Open Data”, May 2018, THINKLab Distinguished Speaker Series, IBM Almaden Research Center, CA, USA.
- Invited Talk “Digital Transformation of Democracy? Challenges and Opportunities”, May 2018, at The Europe Center (TEC), Stanford University, CA, USA, see <https://tec.fsi.stanford.edu/events/digital-transformation-democracy-challenges-and-opportunities>.
- Invited Talk “Metadata Quality: Learning from Portalwatch”, at the LD4P workshop, May 2018, at Stanford University, CA, USA, see <https://wiki.duraspace.org/display/LD4P/LD4+Workshop+2018>.
- Invited Talk “Digital Transformation of Democracy? Challenges and Opportunities” at the Austrian Studies Conference – Authoritarianism and Democracy: Austria, Germany and Europe (1918-2018), April 2018, University of California, Berkeley, CA, USA, see <https://ies.berkeley.edu/austrian-studies-conference>.



- “Data Integration for (Linked?) Open Data on the Web”, talk at the Protégé Group Research Meetings, at the Biomedical Informatics Research Center, February 2018, Stanford University, CA, USA.
- Lecture on “Challenges for Semantic Data Integration on the Web of Open Data” at the Reasoning Web 2017 Summer School, July 2017, London, UK, see <http://reasoningweb.org/2017/>.
- Keynote speaker “Open Data as the fuel for Cognitive Computing” at the Kick-off event for the Digital Information Management Community Austria (DIMCA2017), March 2017, organized by Bundesrechenzentrum (BRZ) Austria.
- Keynote speaker, “(Enterprise) Linked Data: What’s missing?” at the International Conference on Knowledge Engineering and Semantic Web (KESW 2016), Sep 2016, Czech Republic.
- Tutor at the 12th Summer School on Ontology Engineering and the Semantic Web (SSSW’16), 17-23 July, 2015. Bertinoro, Italy.
- Keynote speaker “On Archiving Linked and Open Data” at the 2nd Workshop on Managing the Evolution and Preservation of the Data Web (MEPDaW 2016), co-located with ESWC2016, May 2016, Heraklion, Crete.
- Invited Talk: “Integrating Open Data: (How) Can Description Logics Help me?” at the CSWR Second Annual Workshop, Pontificia Universidad Católica de Chile, January 2016, Santiago, Chile.
- Invited Seminar “SPARQL1.1 Updates and Entailment - Why the specification is silent about their interaction” at the Computer Science Department of University of Oxford, December 2015, Oxford, United Kingdom.
- Invited Talk “Integrating Open Data: (How) Can Description Logics & Ontological Reasoning Help me?” at the INSIGHT Centre for Data Analytics, National University of Ireland, Galway, August 2015, Galway, Ireland.
- Tutor at the 11th Summer School on Ontology Engineering and the Semantic Web (SSSW’15), 5 - 11 July, 2015. Bertinoro, Italy.
- Keynote speaker, “Integrating Open Data: (How) Can Description Logics Help me?” at the 28th International Workshop on Description Logics, June 2015, Athens, Greece.
- Invited Talk “Open Data - How can you use Open Data?” at the IDC Data Hub Conference, May 2015, Vienna, Austria.
- Invited Talk “SPARQL1.1 Updates and Entailment - Why the specification is silent about their interaction” at the Karlsruhe Service Summit Workshop, February 2015, Karlsruhe, Germany.

- Invited Talk “Web Standards and Technical Challenges for Publishing and Processing Data on the Web” at the IKT Trends 2020 Series event on the topic of “Web Science” organized by the Austrian Computer Society (OCG), September 2014, Vienna, Austria.
- Lecture on “Querying the Web of Data with SPARQL and XSPARQL” at the Web Intelligence Summer School 2014, St. Etienne, France.
- Invited Talk “Web Standards and Technical Challenges for Publishing and Processing Open Data” at the IDC Data Hub Conference, June 2014, Vienna, Austria.
- Presentation “City Data Pipeline – A report about experiences from using Open Data to gather indicators of city performance ” at the European Data Forum (EDF2014), Athens, Greece.
- Invited Seminar “How (well) do Datalog, SPARQL, and RIF interplay?”, Informatik-Kolloquium, December 2013, University of Innsbruck, Austria.
- Best Practice Talk “Weaving a Web of Actions – Beschreibung und Ausführung datenorientierter Prozesse und Dienste im Web”, PzM Summit (Prozessmanagement-Kongress), November 2013, Vienna, Austria.
- Inaugural lecture (Antrittsvorlesung) “From SQL to SPARQL”, WU Wien, November 2013, Vienna, Austria.
- Half day tutorial on “RDFS & OWL Reasoning for Linked Data” at the Reasoning Web Summer School 2013, Mannheim, Germany.
- Invited Talk “OWL vs. Linked Data: Experiences and Directions”, at the 10th OWL: Experiences and Directions Workshop (OWLED 2013), May, 2013, Montpellier, France.
- Invited Tutorial “How (well) do Datalog, SPARQL, and RIF interplay?” at the second Datalog 2.0 workshop, September 2012, Vienna, Austria.
- Tutorial “Querying and Exchanging XML and RDF on the Web” at the 21st World Wide Web Conference (WWW2012)), April 2012, Lyon, France.
- “Four years into SPARQL, what’s next?”, Plenary Speaker at PAAMS’12, March 2012, Salamanca, Spain.
- Tutorial “Transforming between RDF and XML with XSPARQL” at the 2011 Semantic Technology conference (SemTech2011), San Francisco, CA.
- “SPARQL1.1: An introduction”, October 2010, invited seminar, Universidad de Chile, Santiago, Chile.
- “Semantic Web Technologies: From Theory to Standards”, October 2010, invited seminar (given in Spanish) at Univseridad de Talca, Chile.

- Invited Tutorial on “SPARQL 1.1” at RR2010, the 4th International Conference on Web Reasoning and Rule Systems (RR2010), September 2010, Bressanone/Brixen, Italy.
- Invited Tutorial on “Logics and Logic Programming in the Semantic Web” at CILC 2010, the Italian Conference on Computational Logic, July 2010, University of Calabria, Italy.
- Keynote speaker at the International Conference on Intelligent Semantic Web – Services and Applications (ISWSA 2010), June 2010, Amman, Jordan, see <http://iswsa2010.ipu.edu.jo/index.php?c=speak.htm>
- Half-Day Tutorial “Scalable OWL Reasoning for Linked Data” at the 7th European Semantic Web Conference (ESWC 2010), June 2010, Heraklion, Greece.
- Presentation on “Using Datalog for Rule-Based Reasoning over Web Data: Challenges and Next Steps” at the Datalog 2.0 workshop, Magdalen College, Oxford, UK.
- “Linked Broken Data?”, November 2009, invited seminar at Unverersity of Aberdeen, UK.
- Invited Demo “Semantic Search for CMS” at the IKS Workshop “Semantic Search - Fact and Fiction”, November, 2009, Rome, Italy.
- Invited talk “Linked Broken Data?” at the 5th International Workshop on Automated Specification and Verification of Web Systems (WWV’09), Castle of Hagenberg, July 2009, Austria.
- Panelist at the “Agreement Technologies” panel at the Sixth European Workshop on Multi-Agent Systems (EUMAS 2008), December 2008, Bath, UK, see <http://eumas08.cs.bath.ac.uk/>
- Invited Talk “That’s the Semantic Web – Using RIF and SPARQL to aggregate Linked Open Data” at Guardian Developer Network, October 2008, London, UK.
- Keynote speech “Using/Extending RIF and SPARQL to navigate Linked Open Data” at the Xinnovations PhD workshop, September 2008, Berlin, Germany, see <http://www.xinnovations.de/sti-berlin-phd-workshop.html>
- Lecture on “Rules and Ontologies for the Web” at the Reasoning Web 2008 Summer School, September 2008, Venice, Italy, see <http://reasoningweb.org/2008/>.
- Panelist at the Darklight and Digital Media Forum Symposium “Web 3.0: Where Next For The Internet?”, June 2008, Darklight Film Festial, Dublin, Ireland, see <http://www.darklight.ie/pages/talks.htm>
- “Where is the Semantic Web?”, February 2008, invited seminar at Universidad Simón Bolívar, Caracas, Venezuela.

- “An Introduction to Answer Set Programming”, February 2008, half day tutorial at Universidad Simón Bolívar, Caracas, Venezuela.
- “Next Steps on SPARQL”, January 2008, invited seminar at the University of Calabria, Cosenza, Italy.
- “Next Steps on SPARQL”, January 2008, invited seminar at the University of Bozen-Bolzano, Italy.
- Lecture on “Rule Interchange on the Web” at the Reasoning Web 2007 Summer School, September 2007, Dresden, Germany, see <http://reasoningweb.org/2007/>
- Invited Talk on “Rule Interchange on the Web” at the European Business Rules Conference (EBRC 07), June 2007, Düsseldorf, Germany, see <http://www.eurobizrules.org/>.
- “Evaluating SPARQL++ - preliminary results”, June 2007, Vienna University of Technology, Austria.
- Full-Day Tutorial “SPARQL - Where are we? Current state, theory and practice” at the 4th European Semantic Web Conference (ESWC 2007), June 2007, Innsbruck, Austria, see <http://www.polleres.net/sparqltutorial/>
- Full-Day Tutorial “Answer Set Programming for the Semantic Web” at the 3rd European Semantic Web Conference (ESWC 2006), June 2006, Budva, Montenegro, see <http://www.eswc2006.org/tutorials.html#tutorial1>
- “Ontology and rule languages for the Web”, March 2006, Universidade da Coruña, Spain.
- “Why we need another rule language for the Web?”, August 2005, SRI International, Menlo Park, CA, USA, see <http://www.ai.sri.com/seminars/>
- “Current Efforts towards Semantic Web Services (SWS): OWL-S and WSMO”, March 2005, University of Bozen-Bolzano (BIT Seminar), Italy.
- “Current Efforts towards Semantic Web Services (SWS): OWL-S and WSMO”, November 2004, Vienna University of Technology, Austria.
- “AI Planning for Web Service Composition”, September 2004, ILOG, Paris, France.
- “Planning under Uncertainty with Action Languages - A Logic Programming Approach”, February 2004, ITC-IRST Trento, Italy.

### 7.3 Conferences & Workshops Organised

- Area Chair for “Semantic Technologies” at the 24th European Conference on Artificial Intelligence (ECAI2020), see <http://ecai2020.eu/>

- In-Use Track co-chair of the “19th International Semantic Web Conference (ISWC2020)”, see <http://iswc2020.semanticweb.org/>
- Local Chair and Program Co-Chair of the Austrian Computer Science Day (ACSD) 2019, in Vienna Austria, see <http://acsd2019.ai.wu.ac.at/>
- Co-organizer of the Dagstuhl Seminar 18371 on “Knowledge Graphs: New Directions for Knowledge Representation on the Semantic Web”, 9-14 September 2018, see <https://www.dagstuhl.de/en/program/calendar/semhp/?semnr=18371>
- Chair of the Local Organisation Committee of the 16th International Semantic Web Conference - ISWC2017, in Vienna, Austria, see <http://iswc2017.ai.wu.ac.at/>
- Track chair of the “Semantic Web and Linked Data (Linking data)” track of the 28th ACM Conference on Hypertext and Social Media (HT2017) Prague, Czech Republic, see <https://ht.acm.org/ht2017/>
- General Chair & Local Organiser of the 11th SEMANTiCS Conference (SEMANTiCS2015), Vienna in Austria, see <http://www.semantics.cc/was-semantics-2015>
- Track chair of the “AI and the Web” track of the 29th AAAI Conference on Artificial Intelligence (AAAI-15), see <http://www.aaai.org/Conferences/AAAI/2015/aaai15aiweb.php>
- Semantic Data Management Track co-chair of the “12th ESWC (ESWC2015)”, see [2015.eswc-conferences.org/](http://2015.eswc-conferences.org/)
- General chair of the “8th International Conference on Web Reasoning and Rule Systems (RR2014)”, see <http://www.rr-conference.org/RR2014/>
- Semantic Web and Linked Open Data for E-Business Track co-chair of the “15th International Conference on Electronic Commerce and Web Technologies (EC-WEB 2014)”, see <http://www.ebusiness-unibw.org/events/ecweb2014/>
- Industry Track co-chair of the “13th International Semantic Web Conference (ISWC2014)”, see <http://iswc2014.semanticweb.org/>
- Semantic Data Management Track co-chair of the “10th ESWC (ESWC2013)”, see [2013.eswc-conferences.org/](http://2013.eswc-conferences.org/)
- Program co-chair of the “9th Extended Semantic Web Conference (ESWC2012)”, see <http://2012.eswc-conferences.org/>
- Track chair of the “Semantic Web” track at the “21st World Wide Web Conference (WWW2012)”, see <http://www.wwwconference.org/www2012/>
- Local organizer of the “5th International Conference on Web Reasoning and Rule Systems (RR2011)”, see <http://www.rr-conference.org/RR2011/>.

- Local organizer of the “7th Reasoning Web Summer School (RW2011)”, see <http://reasoningweb.org/2011/>
- Semantic Data Management Track co-chair of the “8th Extended Semantic Web Conference (ESWC2011)”, see <http://www.eswc2011.org/>
- Poster and Demonstration Track co-chair of the “9th International Semantic Web Conference (ISWC2010)”, see <http://iswc2010.semanticweb.org/>
- Metadata co-chair of the “3rd Future Internet Symposium 2010 (FIS2010)”, see <http://www.fis2010.org/>
- Program co-chair of the “3rd International Conference on Web Reasoning and Rule Systems (RR2009)”, see <http://www.rr-conference.org/RR2009/>
- Co-organizer of the workshop on “Trust and Privacy on the Social and Semantic Web - SPOT2009”, held in conjunction with the 6th Annual European Semantic Web Conference (ESWC2009), Heraklion, Greece, June 2009, see <http://spot2009.semanticweb.org/>
- Co-organizer of the the MALLOW workshop on “Coordination, Organization, Institutions and Norms in agent systems and on-line communities (COIN)” Torino, Italy, September 2009, see <http://www.cs.bath.ac.uk/coin-at-mallow-2009/>
- Co-organizer of the “3rd Workshop on Applications of Logic Programming in the (Semantic) Web and Web Services (ALPSWS2008)” held in conjunction with the 24th International Conference on Logic Programming (ICLP 2008), Udine, Italy, December 2008, see <http://www.kr.tuwien.ac.at/events/alpsws2008/>
- Co-organizer of the “Workshop on Personal Identification and Collaborations: Knowledge Mediation and Extraction (PICKME 2008)”, held in conjunction with ISWC 2008 in Karlsruhe, Germany, see <http://www.expertfinder.info/pickme2008>
- Steering Committee member of the “2nd International Workshop SMR2 2008 on Service Matchmaking and Resource Retrieval in the Semantic Web (SMR<sup>2</sup> 2008)”, held in conjunction with ISWC 2008 in Karlsruhe, Germany, see <http://www-ags.dfki.uni-sb.de/~klusch/smr2-08/index.html>
- Panel co-chair of the “2008 International RuleML Symposium on Rule Interchange and Applications (RuleML-2008)”, Orlando, Florida, October 2008, see <http://2008.ruleml.org>
- Program Co-chair of the “12th International Workshop on Cooperative Information Agents (CIA 2008)”, Czech Technical University, Prague, Czech Republic, September 2008, see <http://www-ags.dfki.uni-sb.de/~klusch/cia2008/>
- Co-organizer of the “Workshop on Service Matchmaking and Resource Retrieval in the Semantic Web (SMR<sup>2</sup>)” held in conjunction with ISWC 2007 in Busan, Korea, November 2007, see <http://www-ags.dfki.uni-sb.de/~klusch/smr2/>

- Co-organizer of the “2nd Workshop on Applications of Logic Programming in the (Semantic) Web and Web Services (ALPSWS2007)” held in conjunction with the International Conference on Logic Programming (ICLP2007), Porto, Portugal, September 2007, see <http://www.bd.cesma.usb.ve/alpsws07/>
- Sponsor Chair of the “European Semantic Web Conferences 2007 (ESWC’07)”, Innsbruck, Austria, June 2007, see <http://www.eswc2007.org>
- Organizer of the project workshop “Query Optimization for the Semantic Web”, at Universidad Rey Juan Carlos, Madrid, Spain, May 2007; supported by the Spanish AECI under the project ”Mecanismos de Optimización y Evaluación para consultar eficientemente la Web Semántica en la Administración Pública Electrónica”, see <http://www.poller.es.net/SWQueryOptWS>
- Co-organizer of the workshop on “Correspondence and Equivalence for Nonmonotonic Theories (CENT2007)” held in conjunction with the Ninth International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR 2007), Tempe, AZ, May 2007, see <http://www.kr.tuwien.ac.at/cent2007/>
- Main organizer of the “1st ExpertFinder Workshop” co-located with the KnowledgeWeb General Assembly, Berlin, Germany, January 2007, see <http://lstdis.cs.uga.edu/~aleman/efw2007/>
- Main organizer of the “Workshop on Applications of Logic Programming in the Semantic Web and Semantic Web Services (ALPSWS2006)” held in conjunction with the Federated Logic Conference (FLOC2006), Seattle, Washington, USA, August, 2006, see <http://events.deri.at/alpsws2006/>
- Co-organizer of the “First International Workshop on Mediation in Semantic Web Services (MEDIATE 2005)” held in conjunction with the 3rd International Conference on Service Oriented Computing (ICSOC 2005), Amsterdam, The Netherlands, December 2005, see <http://events.deri.at/mediate2005/>
- Local organizer of the “W3C Workshop on Frameworks for Semantics in Web Services”, Innsbruck, Austria, June 2005, see <http://www.w3.org/2005/01/ws-swsf-cfp.html>

## 7.4 Referee Activities

### Journals and Magazines Editorial Board Memberships and Guest Editorship

- Area Editor for the *Journal of Web Semantics (JWS)*, published by Elsevier, since January 2015.
- Editorial Board member of *Semantic Web Journal (SWJ)*, published by IOS Press, since January 2010.

- Editorial Board member of *International Journal On Semantic Web and Information Systems (IJSWIS)*, published by IGI Global, October 2012 – January 2016.
- Guest editor of a Special Issue (Volume 7, Issue 3) on “The Web of Data” for the *Journal of Web Semantics (JWS)*, September 2009.
- Area editor for “Database & Semantic Web” of the *ALP Newsletter*, the electronic newsletter of the Association for Logic Programming, since 2006–2013.

### **Referee for Journals and Books**

- ACM Transactions on Database Systems (TODS)
- Handbook of Research on Emerging Rule-Based Languages and Technologies: Open Solutions and Approaches
- Knowledge and Information Systems (KAIS)
- AI Communications, The European Journal on Artificial Intelligence (AICom)
- Information Processing & Management (IP&M)
- Journal of Artificial Intelligence Research (JAIR)
- Computational Intelligence Journal (CI)
- Referee for the Data and Knowledge Engineering Journal (DKE)
- International Journal of Cooperative Information Systems (IJCIS)
- IEEE Transactions of Data and Knowledge Engineering (TKDE)
- World Wide Web Journal (WWWJ)
- Journal of Web Services Research (JWSR)
- Journal of Web Semantics (JWS)
- International Journal of Electronic Commerce (IJECE)
- Theory and Practice of Logic Programming (TPLP)
- Journal of Data Semantics (JoDS)
- IEEE Intelligent Systems (IEEE IS)
- Transactions on Advanced Research (IPSI BgD Journals)



## Program Committee Memberships for Workshops and Conferences

- 35th AAAI Conference on Artificial Intelligence (AAAI2021), see <https://aaai.org/Conferences/AAAI-21/>
- The Web Conference 2020, see <https://www2020.thewebconf.org/>
- A Decentralised Web Workshop 2020 (co-located with the Web Conference 2020), see <https://adecentweb.org/a-decentralised-web-workshop-2020/>
- 34th AAAI Conference on Artificial Intelligence (AAAI-20), see <https://aaai.org/Conferences/AAAI-20/>
- IJCAI-2019, the 28th International Joint Conference on Artificial Intelligence, see <http://ijcai-19.org/>
- International Symposium on Practical Aspects of Declarative Languages (PADL 2019), see <https://popl19.sigplan.org/track/PADL-2019>
- SEMANTiCS 2018 Conference, see <https://2018.semantics.cc/>
- Reasoning Web summer School 2018 (RW2018), scientific advisory board of the school program, see <http://2018.ruleml-rr.org/rw.html>
- 17th International Semantic Web Conference (ISWC 2018), see <http://iswc2018.semanticweb.org/>, program committee of the Doctoral Consortium
- 15th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR 2019), see <https://sites.sju.edu/lpnmr/>
- 21st International Conference on Knowledge Engineering and Knowledge Management (EKAW 2018), see <http://ekaw.org/>
- 29th ACM Conference on Hypertext and Social Media (HT2018), see <https://ht.acm.org/ht2018/>
- IJCAI-ECAI 2018, the 27th International Joint Conference on Artificial Intelligence and the 23rd European Conference on Artificial Intelligence, see <http://www.ijcai-18.org/>
- ACM Web Science Conference (WebSci '17), see <http://www.websci17.org/>
- 1st Conference on Language, Data and Knowledge (LDK), see <http://ldk2017.org/>
- 26th International World Wide Web Conference (WWW2017), see <http://www2017.com.au>
- 15th International Semantic Web Conference (ISWC 2016), see <http://iswc2016.semanticweb.org/>, senior program committee member research track

- 20th International Conference on Knowledge Engineering and Knowledge Management (EKAW 2016)
- WebSci16 (Web Science 2016), see <http://www.websci16.org/>
- 15th International Conference on Principles of Knowledge Representation and Reasoning (KR2016), see <http://www.kr.org/KR2016/>
- AMW 2016 – Alberto Mendelzon International Workshop on Foundations of Data Management , see <http://www.amw-rdm.org/>
- 25th International World Wide Web Conference (WWW2016), see <http://www2016.ca/>
- 24th International Joint Conference on Artificial Intelligence (IJCAI-15), senior program committee member, see <http://ijcai15.org/>
- 14th International Semantic Web Conference (ISWC 2015), see <http://iswc2015.semanticweb.org/>, senior program committee member research track
- 24th International World Wide Web Conference (WWW2015), see <http://www2015.it/>
- OrdRing 2014 - 2nd International Workshop on Ordering and Reasoning, see <http://www.streamreasoning.org/events/ordring2014>
- 2014 IEEE/WIC/ACM International Conference on Web Intelligence (WI 2014), see <http://wic2014.mimuw.edu.pl/>
- 21st European Conference on Artificial Intelligence (ECAI 2014), senior program committee member, see <http://www.ecai2014.org/>
- ESWC2014, see <http://2014.eswc-conferences.org/>
- 28th AAAI Conference on Artificial Intelligence (AAAI-14), see <http://www.aaai.org/Conferences/AAAI/aaai14.php>
- 12th International Semantic Web Conference (ISWC 2013), see <http://iswc2013.semanticweb.org/>, senior program committee member research track, program committee member evaluation track, in-use track
- 4th International Workshop on Consuming Linked Data (COLD 2013), see <http://db.uwaterloo.ca/cold2013/>
- OrdRing 2013 - 2nd International Workshop on Ordering and Reasoning, see <http://www.streamreasoning.org/events/ordring2013>
- Workshop on Society, Privacy and the Semantic Web - Policy and Technology (PrivOn 2013 - PrivOn 2017), see <http://privon.semanticweb.org/>

- 23rd International Joint Conference on Artificial Intelligence (IJCAI-13), see <http://ijcai13.org/>
- iThings 2013 Conference (the 2013 IEEE International Conference on Internet of Things), see <http://www.china-iot.net/iThings2013.htm>, technical programme committee member for the “Intelligent Management” track
- 27th AAAI Conference on Artificial Intelligence (AAAI-13), see <https://www.aaai.org/Conferences/AAAI/aaai13.php>, senior program committee member in the “AI and the Web” track
- 12th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR 2013), see <http://lpnmr2013.udc.es/>
- Workshop on Answer Set Programming and Other Computing Paradigms (ASPOCP) 2013, see <http://sites.google.com/site/aspocp13>
- 7th International Conference on Web Reasoning and Rule Systems (RR2013), see <http://www.rr-conference.org/RR2013/>
- ESWC2013, senior PC member of Research track, see <http://2013.eswc-conferences.org/>
- ESWC2013 workshop on Services and Applications over Linked APIs and Data (SALAD2013), see <http://salad2013.linkedservices.org/>
- Second international workshop on Knowledge Discovery and Data Mining Meets Linked Open Data (Know@LOD), see <http://www.ke.tu-darmstadt.de/know-a-lod-2013/>
- 32th ACM SIGMOD-SIGACT-SIGART Symposium on Principles of Database Systems (PODS 2013), see <http://www.sigmod.org/2013/> – External Review Committee (ERC)
- 11th International Semantic Web Conference (ISWC 2012), see <http://iswc2012.semanticweb.org/>, senior program committee member
- ISWC2012 Workshop on Consuming Linked Data (COLD 2012), see <http://km.aifb.kit.edu/ws/cold2012/>
- International Conference on Semantic Systems 2012, Graz, Austria (I-SEMANTICS’12), see <http://i-semantic.tugraz.at/>
- 20th European Conference on Artificial Intelligence (ECAI 2012), see <http://www2.lirmm.fr/ecai2012/>
- ECAI2012 workshop on Standards for Smart Applications (S4SA 2012), see <https://sites.google.com/site/s4sa2012/>
- 26th AAAI Conference on Artificial Intelligence (AAAI-12), see <http://www.aaai.org/Conferences/AAAI/aaai12.php>

- 3rd International Workshop on Data Engineering Meets the Semantic Web (DESWEB), see <http://sites.google.com/site/desweb2012/>
- ISWC2011 Workshop on Consuming Linked Data (COLD 2011), see <http://km.aifb.kit.edu/ws/cold2011/>
- 10th International Semantic Web Conference (ISWC 2011), see <http://iswc2011.semanticweb.org/>, senior program committee member
- 10th International Semantic Web Conference In-Use Track (ISWC 2011), see <http://iswc2011.semanticweb.org/>
- 1st International Workshop on Ordering and Reasoning (OrdRing 2011), see <http://ordring2011.search-computing.org/>
- 25th Workshop for Logic Programming (WLP 2011), see <http://www.kr.tuwien.ac.at/events/wlp11/>
- 19th International Conference on Applications of Declarative Programming and Knowledge Management <http://www.kr.tuwien.ac.at/events/inap11/>
- Workshop on Answer Set Programming and Other Computing Paradigms (ASPOCP) 2011 <http://www.dbai.tuwien.ac.at/proj/aspocp11/>
- The 2011 IEEE/WIC/ACM International Conference on Web Intelligence, see <http://wi-iat-2011.org/>
- 10th International Conference on Ontologies, DataBases, and Applications of Semantics (ODBASE 2011), see <http://www.otm-conferences.org/index.php/odbasehornav>
- International Conference on Semantic Systems 2011, Graz, Austria (I-SEMANTICS'11), see <http://i-semanticstugraz.at/>
- Linked Data Triplification Challenge @I-SEMANTICS'11, see <http://i-semanticstugraz.at/triplification-challenge>
- 21st International Conference on Automated Planning and Scheduling (ICAPS 2011), see <http://icaps11.icaps-conference.org/>
- 22nd International Joint Conference on Artificial Intelligence (IJCAI-11), see <http://ijcai-11.iiia.csic.es/>.
- Extended Semantic Web Conference (ESWC 2011) Reasoning Track, see <http://www.eswc2011.org/>
- 1st Workshop on High-Performance Computing for the Semantic Web (HPCSW2011), see <http://www.cs.rpi.edu/~weavej3/hpcsw2011/index.xhtml>
- Semantic Search workshop at WWW2011 (SEMSEARCH'11), see <http://km.aifb.uni-karlsruhe.de/ws/semsearch11>

- Fourth International Workshop on Logic in Databases (LID 2011), co-located with EDBT & ICDT 2011, see <http://lid2011.lille.inria.fr/>.
- 11th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR 2011), see <http://sites.google.com/site/lpnmr2011/>
- Fourth International Workshop on Service Matchmaking and Resource Retrieval in the Semantic Web (SMR2 2010), see <http://www-ags.dfki.uni-sb.de/~klusch/smr2-10/>
- Workshop on Aided Formalization of Business Rules and Policies – FoBuR2010, see <http://www.ontorule-project.eu/dissemination/events/fobur2010>
- ISWC2010 Workshop on Consuming Linked Data (COLD), see <http://consuminglinkeddata.org/COLD2010>
- International Conference on Semantic Systems 2010, Graz, Austria (I-SEMANTICS'10), see <http://i-semantic.tugraz.at/>
- Extended Semantic Web Conference (ESWC 2010) Ontologies and Reasoning Track, see <http://www.eswc2010.org/calls/ontologies-and-reasoning>
- 25-esimo Convegno Italiano di Logica Computazionale (CILC 2010) – Italian Conference on Computational Logic, see <http://www.mat.unical.it/CILC2010/>
- Workshop on Answer Set Programming and Other Computing Paradigms (ASPOCP) 2010 <http://www.dbai.tuwien.ac.at/proj/aspocp10/>
- 12th European Conference on Logics in Artificial Intelligence (JELIA 2010), see <http://jelia2010.tkk.fi/>
- 24th AAAI Conference on Artificial Intelligence (AAAI-10), see <http://www.aaai.org/Conferences/AAAI/aaai10.php>
- 3rd International Workshop on Ontology Alignment and Visualization (OnAV'10), see <http://www.ifs.tuwien.ac.at/~mlanzenberger/OnAV10/>
- 9th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2010), see <http://www.cse.yorku.ca/AAMAS2010/>
- AAAI Spring Symposium on "Linked AI:"Linked Data Meets Artificial Intelligence", March 22-24, 2010, see <http://www.foaf-project.org/events/linkedai>
- WWW2010 workshop: Linked Data on the Web (LDOW2010), see <http://events.linkeddata.org/ldow2010/>
- WWW2010 workshop: Semantic Search (SemSearch10), see <http://km.aifb.uni-karlsruhe.de/ws/semsearch10/>

- 19th International World Wide Web Conference (WWW2010), see <http://www2010.org/>
- 8th International Semantic Web Conference (ISWC 2009), see <http://iswc2009.semanticweb.org/>
- ISWC 2009 Workshop on Semantics for the Rest of Us – Variants of Semantic Web Languages in the Real World, see <http://dig.csail.mit.edu/2009/SemRUs-ISWC09/>
- First International Workshop on Logic-Based Interpretation of Context: Modelling and Applications (Log-IC 2009), see <http://www.cs.uni-potsdam.de/lpnmr09/index.php?page=workshops>
- 8th International Conference on Ontologies, DataBases, and Applications of Semantics (ODBASE 2009), see <http://www.onthemove-conferences.org>
- 21st International Joint Conference on Artificial Intelligence (IJCAI-09), see <http://ijcai-09.org/>.
- 6th European Semantic Web Conference (ESWC 2009), see <http://www.eswc2009.org/>
- 18th International World Wide Web Conference (WWW2009), see <http://www2009.org/>
- 2nd International Workshop on Ontology Alignment and Visualization (OnAV'09), see <http://www.ifs.tuwien.ac.at/~mlanzenberger/OnAV09/>
- Workshop on Data Integration through Semantic Technology (DIST2008), see <http://events.sti2.at/dist2008/>
- First International Workshop on Fuzzy Logic On the Web (FLOW 2008), see <http://www.cwi.ugent.be/flow2008/>
- ISWC2008 Workshop on Nature inspired Reasoning for the Semantic Web (NatuReS), see <http://natures.few.vu.nl/>
- Workshop on Agreement Technologies (WAT 2008), see <http://wat2008.gti-ia.dsic.upv.es/>
- 10th International Conference on Electronic Commerce (ICEC 2008), see <http://www.icec08.org/>
- 3rd Asian Semantic Web Conference (ASWC 2008), see <http://www.aswc2008.org/>
- 13th International Conference on Artificial Intelligence: Methodology, Systems, Applications (AIMSA 2008), see <http://www.aimsaconference.org/>.
- 3rd International Workshop on Applications of Semantic Technologies (AST 2008), see <http://km.aifb.uni-karlsruhe.de/ws/ast2008>

- 7th International Semantic Web Conference (ISWC 2008), see <http://iswc2008.semanticweb.org/>
- RuleML Symposium on Rule Interchange and Applications (RuleML-2008), see <http://2008.ruleml.org/>
- 6th International Workshop on Evaluation of Ontology-based tools and the Semantic Web Service Challenge (EON & SWS-Challenge 2008), see <http://sws-challenge.org/wiki/index.php/EON-SWSC2008>
- 2nd International Conference on Web Reasoning and Rule Systems (RR2008), see <http://www.rr-conference.org/RR2008/>
- International Workshop on the Role of Services, Ontologies, and Context in Mobile Environments (RoSOC-M), see <http://events.deri.at/RoSOC-M/>
- 5th European Semantic Web Conference (ESWC 2008), see <http://www.eswc2008.org/>
- Demonstrations track of the 5th European Semantic Web Conference (ESWC 2008), see <http://www.eswc2008.org/calldemos.html>
- PhD Symposium of the 5th European Semantic Web Conference (ESWC 2008), see <http://www.eswc2008.org/callphd.html>
- Tenth International Symposium on Practical Aspects of Declarative Languages (PADL 08), see <http://www.ist.unomaha.edu/padl2008/>
- Reasoning Web Summer School 2008, see [www.reasoningweb.org/2008/](http://www.reasoningweb.org/2008/)
- International Workshop on Ontology Alignment and Visualization (OnAV'08), see <http://www.ifs.tuwien.ac.at/~mlanzenberger/OnAV08/>
- International Workshop on Service Composition & SWS Challenge (SerComp & SWS Challenge '07), see <http://events.deri.at/sercomp2007/>
- ACM Sixteenth Conference on Information and Knowledge Management (CIKM 2007), see <http://www.fc.ul.pt/cikm2007/>
- RuleML Symposium on Rule Interchange and Applications (RuleML-2007), see <http://2007.ruleml.org/>
- Joint ODBIS & SWDB workshop on Semantic Web, Ontologies, Databases (SWDB-ODBIS07), see <http://lsdis.cs.uga.edu/swdb-odbis07/>
- 1st First International Workshop: "New forms of reasoning for the Semantic Web: scaleable, tolerant and dynamic", see <http://members.deri.at/~ruzicap/ISWC2007-WS/>
- 2nd International ExpertFinder Workshop: FEWS2007 (Finding Experts on the Web with Semantics), see <http://fews.semanticweb.org/>

- 6th International Semantic Web Conference and the 2nd Asian Semantic Web Conference (ISWC 2007+ASWC2007), see <http://iswc2007.semanticweb.org/>
- 5th International Conference on Service-Oriented Computing (ICSOC 2007), see <http://icsoc07.icsoc.org/>
- 1st European Workshop on the Use of Ontologies in Logistics Applications” (OntoLogistics2007), see <http://events.deri.at/ontologistics2007/>
- Conference on Social Semantic Web (CSSW 2007), see <http://aksw.org/cssw>
- 4th International Workshop on Semantic Web for Services and Processes (SWSP 07), see <http://dme.uma.pt/jcardoso/Research/Conferences/SWSP07/>
- 2nd International Workshop on Applications of Semantic Technologies (AST 2007), see <http://km.aifb.uni-karlsruhe.de/ws/ast2007>
- 1st International Conference on Web Reasoning and Rule Systems (RR2007), see <http://www.rr-conference.org/RR2007/>
- 6th International Conference on Ontologies, DataBases, and Applications of Semantics (ODBASE’07), see <http://www.cs.rmit.edu.au/fedconf/index.html?page=odbase2007cfp>
- 2nd International Workshop on Managing Context Information and Semantics in Mobile Environments (MCISME 2007), see <http://mcisme2007.deri.ie/>
- 2nd International Conference on e-Business (ICE-B 2007), see <http://www.ice-b.org/ICE-B2007/>
- 4th European Semantic Web Conference (ESWC 2007), see <http://www.eswc2007.org/>
- Knowledge Web PhD Symposium 2007 (KWEPSY 2007), see <http://ontoworld.org/wiki/KWEPSY2007>
- 1st International Workshop on Applications of Semantic Technologies (AST 2006), see <http://km.aifb.uni-karlsruhe.de/ws/ast2006>
- 4th International Conference on Service-Oriented Computing (ICSOC 2006)), see <http://icsoc06.icsoc.org/>
- Service Discovery on the WWW Workshop (SDISCO’06)
- 1st International Workshop on Semantic Matchmaking and Resource Retrieval: Issues and Perspectives (SMR 2006)
- 5th European Networked Knowledge Organization Systems (NKOS 2006) Workshop



- 2006 International Conference on E-business (ICE-B 2006), see <http://www.ice-b.org/ICE-B2006/>
- International Conference on Rules and Rule Markup Languages for the Semantic Web (RuleML 2006)
- Reasoning on the Web (RoW 2006)
- International Conference on Internet and Web Applications and Services (ICIW 2006)
- Workshop for Logic Programming (WLP 2006)
- Canadian Semantic Web Working Symposium 2006
- Semantic-Based Resource Discovery, Retrieval and Composition (RDRC) Track of the 21st Annual ACM Symposium on Applied Computing (SAC'06)
- 3rd International Conference on Service-Oriented Computing (ICSOC 2005), see <http://icsoc05.icsoc.org/>
- PRODIS 2005: Workshop on Product-related Data in Information Systems, see <http://events.deri.at/prodis2005/>
- 1st International Workshop on Web Service Choreography and Orchestration for Business Process Management (BPM 2005), see <http://events.deri.at/bpm2005/>
- IADIS International Conference on WWW/Internet 2005, see <http://www.iadis.org/icwi2005/>
- 4th International Conference on Ontologies, DataBases, and Applications of Semantics (ODBASE 2005), see <http://www.cs.rmit.edu.au/fedconf/odbase/2005/>
- SIGIR 2004 Semantic Web Workshop, see <http://events.deri.at/sw2004/>

## 7.5 Other Memberships in Organisations, Working Groups, and Committees

- Member of the Semantic Web Science Association (SWSA), since 2021, <http://swsa.semanticweb.org/>.
- Vice-President of the Austrian Society for Artificial Intelligence – ASAI (formerly ÖGAI), since 2020, member since 2000 <http://www.asai.ac.at/>.
- Member of the Working Group “Artificial Intelligence Strategy Austria” established within the “Forum Forschung” (Forum of Research) of the Universities Austria (Österreichische Universitätenkonferenz - uniko), 2019
- Member of the SEMANTiCS Conference Permanent Advisory Board, since 2015, see <http://www.semantics.cc/>

- Member of the W3C Advisory Committee, representing WU (Wirtschaftsuniversität Wien) - Vienna University of Economics and Business, since January 2014, <http://www.w3.org>.
- Member of the ESWC Scientific Steering Committee, June 2012 – June 2016, <http://www.eswc-conferences.org/>
- Member of the RR Conference Steering Committee, since May 2011, <http://rr-conference.org/>
- Co-chair of the W3C SPARQL Working Group, since February 2009, <http://www.w3.org/2001/sw/DataAccess/>.
- Member of the W3C RDF Working Group, February 2011 – June 2011, <http://www.w3.org/2011/rdf-wg/>.
- Member of IEEE, since November 2008, <http://www.ieee.org/>.
- Member of the W3C Advisory Committee, representing DERI Galway at the National University of Ireland, Galway, July 2008 – May 2009, <http://www.w3.org>.
- Member of the W3C RDB2RDF Incubator Group (RDB2RDF XG), March 2008 – April 2009, <http://www.w3.org/2005/Incubator/rdb2rdf/>
- Deputy chair of the Reasoning Web Summer School Steering Committee, February 2008 – May 2010, <http://reasoningweb.org/>, board member until September 2012.
- Member of the W3C Rule Interchange Format (RIF) Working Group, November 2005 – October 2010, <http://www.w3.org/2005/rules/>
- Member of the W3C Advisory Committee, representing DERI Innsbruck at the Leopold Franzens Universität Innsbruck, January 2005 to January 2006, <http://www.w3.org>.
- Member of the Semantic Web Services Language (SWSL) Committee, since November 2004, <http://www.daml.org/services/swsl/>.
- Member of the Web Service Modeling Ontology (WSMO) Working Group, since January 2004, <http://www.wsmo.org/>.
- Member of the OCG (Austrian Computer Society), since 2000, <http://www.ocg.at/>.

## 8 Publications

### 2021

- [1] Aidan Hogan, Eva Blomqvist, Michael Cochez, Claudia d’Amato, Gerard de Melo, Claudio Gutierrez, José Emilio Labra Gayo, Sabrina Kirrane, Sebastian Neumaier, Axel Polleres, Roberto Navigli, Axel-Cyrille Ngonga Ngomo, Sabbir M. Rashid, Anisa Rula, Lukas Schmelzeisen, Juan Sequeda, Steffen Staab, and Antoine Zimmermann. Knowledge graphs. *ACM Computing Surveys (CSUR)*, accepted for publication, 2021. to appear. Extended pre-print available at <https://arxiv.org/abs/2003.02320>.
- [2] Amr Azzam, Christian Aebeloe, Gabriela Montoya, Ilkcan Keles, Axel Polleres, and Katja Hose. WiseKG: Balanced Access to Web Knowledge Graphs. In *The Web Conference 2021*, Ljubljana, Slovenia, 2021. to appear.
- [3] Erwin Filtz, Sabrina Kirrane, and Axel Polleres. The linked legal data landscape. linking legal data across different countries. *Artificial Intelligence and Law*, accepted for publication, 2021. to appear.

### 2020

- [1] Erwin Filtz, María Navas-Loro, Cristiana Santos, Axel Polleres, and Sabrina Kirrane. Events matter: Extraction of events from court decisions. In Villata Serena, Jakub Harasta, and Petr Kremen, editors, *Legal Knowledge and Information Systems - JURIX 2020: The Thirty-third Annual Conference, Brno, Czech Republic, December 9-11, 2020*, volume 334 of *Frontiers in Artificial Intelligence and Applications*, pages 33–42. IOS Press, 2020.
- [2] Thomas Weber, Johann Mitlöhner, Sebastian Neumaier, and Axel Polleres. Odarchive - creating an archive for structured data from open data portals. In *Proceedings of the 19th International Semantic Web Conference (ISWC 2020)*, volume 12507 of *Lecture Notes in Computer Science (LNCS)*, pages 311–327, Virtual Conference (Athens, Greece), November 2020. Springer.
- [3] Jan Portisch, Omaila Fallatah, Sebastian Neumaier, and Axel Polleres. Challenges of linking organizational information in open government data to knowledge graphs. In *22nd International Conference on Knowledge Engineering and Knowledge Management (EKAW 2020)*, volume 12387 of *Lecture Notes in Computer Science (LNCS)*, pages 271–286, Bozen-Bolzano, Italy, September 2020. Springer.
- [4] Amr Azzam, Javier D. Fernández, Maribel Acosta, Martin Beno, and Axel Polleres. SMART-KG: Hybrid shipping for SPARQL querying on the web. In *The Web Conference 2020*, Taipei, Taiwan, 2020. Pre-print available at <https://epub.wu.ac.at/7428>.
- [5] Armin Haller, Javier D. Fernández, Maulik R. Kamdar, and Axel Polleres. What are links in linked open data? a characterization and evaluation of links between knowledge

graphs on the web. *ACM Journal of Data and Information Quality (JDIQ)*, to appear, accepted for publication, 2020. Pre-print available at <https://epub.wu.ac.at/7193/>.

- [6] Axel Polleres, Maulik Rajendra Kamdar, Javier D. Fernández, Tania Tudorache, and Mark A. Musen. A more decentralized vision for linked data. 11(1):101–113, January 2020. SWJ 10-years special issue.
- [7] Armin Haller and Axel Polleres. Are we better off with just one ontology on the web? 11(1):87–99, January 2020. SWJ 10-years special issue.

## 2019

- [1] Giray Havur, Simon Steyskal, Oleksandra Panasiuk, Anna Fensel, Víctor Mireles, Tassilo Pellegrini, Thomas Thurner, Axel Polleres, and Sabrina Kirrane. Automatic license compatibility checking. In Mehwish Alam, Ricardo Usbeck, Tassilo Pellegrini, Harald Sack, and York Sure-Vetter, editors, *Proceedings of the Posters and Demo Track of the 15th International Conference on Semantic Systems (SEMANTiCS 2019)*, volume 2451 of *CEUR Workshop Proceedings*, Karlsruhe, Germany, September 2019. CEUR-WS.org.
- [2] Martin Beno, Erwin Filtz, Sabrina Kirrane, and Axel Polleres. Doc2RDFa: Semantic annotation for web documents. In Mehwish Alam, Ricardo Usbeck, Tassilo Pellegrini, Harald Sack, and York Sure-Vetter, editors, *Proceedings of the Posters and Demo Track of the 15th International Conference on Semantic Systems (SEMANTiCS 2019)*, volume 2451 of *CEUR Workshop Proceedings*, Karlsruhe, Germany, September 2019. CEUR-WS.org.
- [3] Maulik R. Kamdar, Javier D. Fernández, Axel Polleres, Tania Tudorache, and Mark A. Musen. Enabling web-scale data integration in biomedicine through linked open data. *npj Digital Medicine*, 2(1):90, September 2019.
- [4] Sabrina Kirrane, Marta Sabou, Javier D. Fernández, Francesco Osborne, Cécile Robin, Paul Buitelaar, Enrico Motta, and Axel Polleres. A decade of semantic web research through the lenses of a mixed methods approach. *Semantic Web – Interoperability, Usability, Applicability (SWJ)*, 2019. to appear (accepted for publication).
- [5] Erwin Filtz, Sabrina Kirrane, Axel Polleres, and Gerhard Wohlgenannt. Exploiting EuroVoc’s hierarchical structure for classifying legal documents. In *On the Move to Meaningful Internet Systems: OTM 2019 Conferences Confederated International Conferences: CoopIS, ODBASE, C&TC*, volume 11877 of *Lecture Notes in Computer Science (LNCS)*, pages 164–181, Rhodes, Greece, October 2019. Springer. 27th International Conference on COOPERATIVE INFORMATION SYSTEMS (CoopIS 2019).
- [6] Harshvardhan J. Pandit, Axel Polleres, Bert Bos, Rob Brennan, Bud Bruegger, Fajar J. Ekaputra, Javier D. Fernández, Roghaiyeh Gachpaz Hamed, Elmar Kiesling, Mark Lizar, Eva Schlehahn, Simon Steyskal, and Rigo Wenning. Creating a vocabulary

for data privacy – the first-year report of Data Privacy Vocabularies and Controls Community Group (DPVCG). In *On the Move to Meaningful Internet Systems: OTM 2019 Conferences Confederated International Conferences: CoopIS, ODBASE, C&TC*, volume 11877 of *Lecture Notes in Computer Science (LNCS)*, pages 714–730, Rhodes, Greece, October 2019. 18th International Conference on Ontologies, DataBases, and Applications of Semantics (ODBASE 2019).

- [7] Svitlana Vakulenko, Javier Fernández, Axel Polleres, Maarten de Rijke, and Michael Cochez. Message passing for complex question answering over knowledge graphs. In *Proceedings of the 28th ACM International Conference on Information and Knowledge Management (CIKM2019)*, pages 1431–1440, Beijing, China, November 2019. ACM.
- [8] María Navas-Loro, Erwin Filtz, Víctor Rodríguez Doncel, Axel Polleres, and Sabrina Kirrane. TempCourt: Evaluation of temporal taggers on a new corpus of court decisions. *Knowledge Engineering Review*, 34:E24, 2019.
- [9] Horst Bischof, Georg Dorffner, Alexander Egyed, Wolfgang Faber, Bernhard Moser, Bernhard Nessler, Axel Polleres, Stefan Woltran, Gerhard Friedrich, and others. Positionspapier zur österreichischen Artificial Intelligence Strategie AIM AT 2030, June 2019. Forum Forschung der uniko (Österreichischen Universitätenkonferenz), available at <https://uniko.ac.at/positionen/>.
- [10] Harshvardhan J. Pandit, Javier D. Fernández, Christophe Debruyne, and Axel Polleres. Towards cataloguing potential derivations of personal data. In *The Semantic Web: ESWC 2019 Satellite Events*, Portorož, Slovenia, June 2019. Poster abstract.
- [11] Javier D. Fernandez, Jürgen Umbrich, Axel Polleres, and Magnus Knuth. Evaluating query and storage strategies for RDF archives. *Semantic Web – Interoperability, Usability, Applicability (SWJ)*, 10(2):247–291, 2019.
- [12] Sebastian Neumaier and Axel Polleres. Enabling spatio-temporal search in open data. *Journal of Web Semantics (JWS)*, 55:21–36, March 2019.
- [13] Piero Andrea Bonatti, Stefan Decker, Axel Polleres, and Valentina Presutti, editors. *Knowledge Graphs: New Directions for Knowledge Representation on the Semantic Web (Dagstuhl Seminar 18371)*, volume 8, Dagstuhl, Germany, 2019. Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik.

## 2018

- [1] Peter F. Patel-Schneider, Axel Polleres, and David Martin. Comparative preferences in SPARQL. In Catherine Faron-Zucker, Chiara Ghidini, Amedeo Napoli, and Yannick Toussaint, editors, *Knowledge Acquisition, Modeling and Management (EKAW2018) – 21st International Conference*, volume 11313 of *Lecture Notes in Computer Science (LNCS)*, pages 289–305, Nancy, France, November 2018. Springer.

- [2] Javier D. Fernández, Sabrina Kirrane, Axel Polleres, and Simon Steyskal. HDT<sub>crypt</sub>: Compression and Encryption of RDF Datasets. *Semantic Web – Interoperability, Usability, Applicability (SWJ)*, 2018. to appear (accepted for publication).
- [3] Erwin Filtz, Sabrina Kirrane, and Axel Polleres. Interlinking legal data. In *Proceedings of the Posters and Demos Track of the 14th International Conference on Semantic Systems (SEMANTiCS2018)*, Vienna, Austria, September 2018. Poster abstract.
- [4] Giray Havur, Simon Steyskal, Oleksandra Panasiuk, Anna Fensel, Víctor Mireles, Tassilo Pellegrini, Thomas Thurner, Axel Polleres, and Sabrina Kirrane. Dalicc: A framework for publishing and consuming data assets legally. In *Proceedings of the Posters and Demos Track of the 14th International Conference on Semantic Systems (SEMANTiCS2018)*, Vienna, Austria, September 2018. Poster abstract.
- [5] Amr Azzam, Axel Polleres, and Sabrina Kirrane. Towards making distributed RDF processing FLINKer. In *4th International Conference on Big Data Innovations and Applications (Innovate-Data)*, pages 9–16, Barcelona, Spain, August 2018. IEEE.
- [6] Peter F. Patel-Schneider, Axel Polleres, and David Martin. Fixing comparative preferences for SPARQL. In *ISWC 2018 Posters & Demos*, October 2018. Poster abstract.
- [7] Axel Polleres, Maulik R. Kamdar, Javier D. Fernández, Tania Tudorache, and Mark A. Musen. A more decentralized vision for linked data. In *Decentralizing the Semantic Web (Workshop of ISWC2018)*, volume 2165 of *CEUR Workshop Proceedings*. CEUR-WS.org, October 2018. An extended technical report of this paper is available at <http://epub.wu.ac.at/6371/>.
- [8] Piero Bonatti, Bert Bos, Stefan Decker, Javier D. Fernández, Sabrina Kirrane, Vassilios Peristeras, Axel Polleres, and Rigo Wenning. Data privacy vocabularies and controls: Semantic web for transparency and privacy. In *Semantic Web for Social Good Workshop (SWSG) co-located with ISWC2018*, volume 2182 of *CEUR Workshop Proceedings*. CEUR-WS.org, October 2018.
- [9] Svitlana Vakulenko, Maarten de Rijke, Michael Cochez, Vadim Savenkov, and Axel Polleres. Measuring semantic coherence of a conversation. In Denny Vrandečić, Kalina Bontcheva, Mari Carmen Suárez-Figueroa, Valentina Presutti, Irene Celino, Marta Sabou, Lucie-Aimée Kaffee, and Elena Simperl, editors, *Proceedings of the 17th International Semantic Web Conference (ISWC 2018)*, volume 11136 of *Lecture Notes in Computer Science (LNCS)*, pages 634–651, Monterey, CA, October 2018. Springer.
- [10] Sebastian Neumaier, Vadim Savenkov, and Axel Polleres. Geo-semantic labelling of open data. In Anna Fensel, Victor de Boer, Tassilo Pellegrini, Elmar Kiesling, Bernhard Haslhofer, Laura Hollink, and Alexander Schindler, editors, *Proceedings of the 14th International Conference on Semantic Systems 10th (SEMANTiCS)*, volume 137 of *Procedia Computer Science*, pages 9–20, Vienna, Austria, September 2018. Elsevier.

- [11] Javier D. Fernandez, Miguel A. Martínez-Prieto, Axel Polleres, and Julian Reindorf. HDTQ: Managing RDF datasets in compressed space. In Aldo Gangemi, Roberto Navigli, Maria-Esther Vidal, Pascal Hitzler, Raphaël Troncy, Laura Hollink, Anna Tordai, and Mehwish Alam, editors, *Proceedings of the 15th European Semantic Web Conference (ESWC2018)*, volume 10843 of *Lecture Notes in Computer Science (LNCS)*, pages 191–208, Heraklion, Greece, June 2018. Springer.
- [12] Sabrina Kirrane, Javier D.Fernández, Wouter Dullaert, Uros Milosevic, Axel Polleres, Piero Bonatti, Rigo Wenning, Olha Drozd, and Philip Raschke. A scalable consent, transparency and compliance architecture. In Aldo Gangemi, Anna Lisa Gentile, Andrea Giovanni Nuzzolese, Sebastian Rudolph, Maria Maleshkova, Heiko Paulheim, Jeff Z Pan, and Mehwish Alam, editors, *The Semantic Web: ESWC 2018 Satellite Events*, number 11155 in *Lecture Notes in Computer Science (LNCS)*, pages 131–136, Heraklion, Greece, June 2018. Demo abstract.
- [13] Cristina Baroglio, Olivier Boissier, and Axel Polleres, editors. *Transactions on Internet Technology, Special Issue: Computational Ethics and Accountability*, volume 18. ACM, 2018. Editorial.
- [14] Stefan Bischof, Andreas Harth, Benedikt Kämpgen, Axel Polleres, and Patrik Schneider. Enriching integrated statistical open city data by combining equational knowledge and missing value imputation. *Journal of Web Semantics (JWS)*, 48:22–47, January 2018.
- [15] Sherif Sakr, Marcin Wylot, Raghava Mutharaju, Danh Le Phuoc, and Irimi Fundulaki. *Linked Data: Storing, Querying, and Reasoning*. Springer, 2018. Foreword by Axel Polleres.

## 2017

- [1] Clemens Appl, Andreas Ekelhart, Natascha Fenz, Peter Kieseberg, Hannes Leo, Sabrina Kirrane, Axel Polleres, Alfred Taudes, Veronika Treitl, Christian Singer, and Martin Winner. Big Data, Innovation und Datenschutz, December 2017. Studie im Auftrag des Bundesministeriums für Verkehr, Innovation und Technologie (BMVIT).
- [2] Martin Beno, Kathrin Figl, Jürgen Umbrich, and Axel Polleres. Perception of key barriers in using and publishing open data. *eJournal of eDemocracy and Open Government (JeDEM)*, 9(2):134–165, December 2017.
- [3] Vadim Savenkov, Qaiser Mehmood, Jürgen Umbrich, and Axel Polleres. Counting to k, or how SPARQL 1.1 could be efficiently enhanced with top k shortest path queries. In *13th International Conference on Semantic Systems (SEMANTiCS)*, pages 97–103, Amsterdam, the Netherlands, September 2017. ACM.
- [4] Piero Bonatti, Sabrina Kirrane, Axel Polleres, and Rigo Wenning. Transparent personal data processing: The road ahead. In *TELERISE: 3rd International Workshop*

on *TEchnical and LEgal aspects of data pRivacy and SEcurity @ SAFECOMP2017*, volume 10489 of *Lecture Notes in Computer Science (LNCS)*, pages 337–349, Trento, Italy, September 2017.

- [5] Sebastian Neumaier, Axel Polleres, Simon Steyskal, and Jürgen Umbrich. Data integration for open data on the web. In Giovambattista Ianni, Domenico Lembo, Leopoldo E. Bertossi, Wolfgang Faber, Birte Glimm, Georg Gottlob, and Steffen Staab, editors, *Reasoning Web. Semantic Interoperability on the Web (Reasoning Web 2017)*, volume 10370 of *Lecture Notes in Computer Science (LNCS)*, pages 1–28. Springer, London, United Kingdom, July 2017.
- [6] Erwin Filtz, Axel Polleres, Roman Karl, and Bernhard Haslhofer. The evolution of the bitcoin graph. In *Proceedings of the 1st International Data Science Conference (iDSC2017)*, Salzburg, Austria, June 2017.
- [7] Martin Beno, Kathrin Figl, Axel Polleres, and Jürgen Umbrich. Open data hopes and fears: Determining the barriers of open data. In *2017 Conference for E-Democracy and Open Government (CeDEM 2017)*, Krems, Austria, May 2017. **Nominated for best paper award.**
- [8] Albin Ahmeti, Javier Fernández, Axel Polleres, and Vadim Savenkov. Updating wikipedia via DBpedia mappings and SPARQL. In Eva Blomqvist, Diana Maynard, Aldo Gangemi, Rinke Hoekstra, Pascal Hitzler, and Olaf Hartig, editors, *Proceedings of the 14th European Semantic Web Conference (ESWC2017)*, volume 10249 of *Lecture Notes in Computer Science (LNCS)*, pages 485–501, Portorož, Slovenia, May 2017. Springer.
- [9] Javier Fernández, Sabrina Kirrane, Axel Polleres, and Simon Steyskal. Self-enforcing access control for encrypted RDF. In *Proceedings of the 14th European Semantic Web Conference (ESWC2017)*, volume 10249 of *Lecture Notes in Computer Science (LNCS)*, pages 607–622, Portorož, Slovenia, May 2017. Springer.
- [10] Sebastian Neumaier, Jürgen Umbrich, and Axel Polleres. Lifting data portals to the web of data. In *10th Workshop on Linked Data on the Web (LDOW2017)*, Perth, Australia, April 2017.
- [11] Simon Sperl, Giray Havur, Simon Steyskal, Cristina Cabanillas, Axel Polleres, and Alois Haselböck. Resource utilization prediction in decision-intensive business processes. In Paolo Ceravolo, Maurice van Keulen, and Kilian Stoffel, editors, *Proceedings of the 7th International Symposium on Data-driven Process Discovery and Analysis (SIMPDA 2017)*, volume 2016 of *CEUR Workshop Proceedings*, pages 128–141, Neuchâtel, Switzerland, December 2017. CEUR-WS.org.

## 2016

- [1] Javier Fernández, Elmar Kiesling, Sabrina Kirrane, Julia Neuschmid, Mika Mizerski, Axel Polleres, Marta Sabou, Thomas Thurner, and Peter Wetz. *Propelling the Potential*



of *Enterprise Linked Data in Austria: Roadmap and Report*. edition mono/monochrom, Zentagasse 31/8, A-1050 Vienna, Austria, December 2016.

- [2] Sebastian Neumaier, Jürgen Umbrich, and Axel Polleres. Challenges of mapping current CKAN metadata to DCAT. In *W3C Workshop on Data and Services Integration*, Amsterdam, the Netherlands, November 2016.
- [3] Sebastian Neumaier, Jürgen Umbrich, Josiane Parreira, and Axel Polleres. Multi-level semantic labelling of numerical values. In *Proceedings of the 15th International Semantic Web Conference (ISWC 2016) - Part I*, volume 9981 of *Lecture Notes in Computer Science (LNCS)*, pages 428–445, Kobe, Japan, October 2016. Springer. **Nominated for best student paper award.**
- [4] Sebastian Neumaier, Jürgen Umbrich, and Axel Polleres. Automated quality assessment of metadata across open data portals. *ACM Journal of Data and Information Quality (JDIQ)*, 8(1):2, November 2016.
- [5] Giray Havur, Cristina Cabanillas, Jan Mendling, and Axel Polleres. Resource allocation with dependencies in business process management systems. In *Business Process Management Forum - BPM Forum 2016*, volume 260 of *Lecture Notes in Business Information Processing*, pages 3–19, Rio de Janeiro, Brazil, September 2016. Springer.
- [6] Javier David Fernández Garcia, Jürgen Umbrich, Magnus Knuth, and Axel Polleres. Evaluating query and storage strategies for RDF archives. In *12th International Conference on Semantic Systems (SEMANTiCS)*, ACM International Conference Proceedings Series, pages 41–48. ACM, September 2016.
- [7] Mónica Posada-Sánchez, Stefan Bischof, and Axel Polleres. Extracting geo-semantics about cities from openstreetmap. In *Proceedings of the Posters and Demos Track of the 12th International Conference on Semantic Systems (SEMANTiCS2016)*, Leipzig, Germany, September 2016.
- [8] Johann Mitlöhner, Sebastian Neumaier, Jürgen Umbrich, and Axel Polleres. Characteristics of open data CSV files. In *2nd International Conference on Open and Big Data*, August 2016. Invited paper.
- [9] Albin Ahmeti, Javier D. Fernández, Axel Polleres, and Vadim Savenkov. Towards updating Wikipedia via DBpedia mappings and SPARQL. In *Alberto Mendelzon International Workshop on Foundations of Data Management (AMW2016)*, Panama City, Panama, June 2016. Short paper.
- [10] Claudio Gutierrez, Aidan Hogan, Daniel Hernández, and Axel Polleres. Certain answers for SPARQL? In *Alberto Mendelzon International Workshop on Foundations of Data Management (AMW2016)*, Panama City, Panama, June 2016. Short paper.
- [11] Axel Polleres, Juan Reutter, and Egor V. Kostylev. Nested constructs vs. sub-selects in SPARQL. In *Alberto Mendelzon International Workshop on Foundations of Data Management (AMW2016)*, Panama City, Panama, June 2016.

- [12] Albin Ahmeti, Diego Calvanese, Axel Polleres, and Vadim Savenkov. Handling inconsistencies due to class disjointness in SPARQL updates. In Harald Sack, Eva Blomqvist, Mathieu d’Aquin, Chiara Ghidini, Simone Paolo Ponzetto, and Christoph Lange, editors, *Proceedings of the 13th European Semantic Web Conference (ESWC2016)*, volume 9678 of *Lecture Notes in Computer Science (LNCS)*, pages 387–404, Heraklion, Greece, June 2016. Springer.
- [13] Marta Borriello, Christian Dirschl, Axel Polleres, Phil Ritchie, Frank Salliau, Felix Sasaki, and Giannis Stoitsis. From xml to rdf step by step: approaches for leveraging xml workflows with linked data. In *XML Prague 2016 – Conference Proceedings*, pages 121–138, Prague, Czech Republic, February 2016.

## 2015

- [1] Cristina Cabanillas, Jan Mendling, Axel Polleres, and Alois Haselböck. Safety-critical human- and data-centric process management in engineering projects. In *Proceedings of the 5th International Symposium on Data-driven Process Discovery and Analysis (SIMPDA 2015)*, volume 1527 of *CEUR Workshop Proceedings*, pages 145–148, Vienna, Austria, December 2015. CEUR-WS.org.
- [2] Axel Polleres. Das neue Berufsbild “Data Scientist”. *OCG Journal*, 03/2015:13–16, 2015. Invited article (in German).
- [3] Stefan Belk, Gerhard Wohlgenannt, and Axel Polleres. Exploring and exploiting(?) the awkward connections between SKOS and OWL. In Jeff Z. Pan and Serena Villata, editors, *ISWC 2015 Posters & Demos*, volume 1486 of *CEUR Workshop Proceedings*, Bethlehem, Pennsylvania, October 2015. CEUR-WS.org. Poster abstract.
- [4] Stefan Bischof, Christoph Martin, Axel Polleres, and Patrik Schneider. Collecting, integrating, enriching and republishing open city data as linked data. In Marcelo Arenas, Oscar Corcho, Elena Simperl, Markus Strohmaier, Mathieu d’Aquin, Kavitha Srinivas, Paul T. Groth, Michel Dumontier, Jeff Heflin, Krishnaprasad Thirunarayan, and Steffen Staab, editors, *Proceedings of the 14th International Semantic Web Conference (ISWC 2015) - Part II*, volume 9367 of *Lecture Notes in Computer Science (LNCS)*, pages 57–75, Bethlehem, Pennsylvania, October 2015. Springer.
- [5] Jürgen Umbrich, Sebastian Neumaier, and Axel Polleres. Quality assessment & evolution of open data portals. In *IEEE International Conference on Open and Big Data*, Rome, Italy, August 2015. **Best paper award.**
- [6] Giray Havur, Cristina Cabanillas, Axel Polleres, and Jan Mendling. Automated Resource Allocation in Business Processes with Answer Set Programming. In *11th International Workshop on Business Process Intelligence 2015*, Innsbruck, Austria, August 2015.

- [7] Saimir Bala, Cristina Cabanillas, Jan Mendling, Andreas Rogge-Solti, and Axel Polleres. Mining project-oriented business processes. In *13th International Conference on Business Process Management (BPM 2015)*, volume 9253 of *Lecture Notes in Computer Science*, pages 425–440, Innsbruck, Austria, August 2015. Springer.
- [8] Simon Steyskal and Axel Polleres. Towards formal semantics for ODRL policies. In *9th International Web Rule Symposium (RuleML2015)*, number 9202 in *Lecture Notes in Computer Science (LNCS)*, pages 360–375, Berlin, Germany, August 2015. Springer.
- [9] Albin Ahmeti, Diego Calvanese, Vadim Savenkov, and Axel Polleres. Dealing with Inconsistencies due to Class Disjointness in SPARQL Update. In *28th International Workshop on Description Logics (DL2015)*, Athens, Greece, June 2015.
- [10] Stefan Bischof, Markus Krötzsch, Axel Polleres, and Sebastian Rudolph. Schema-agnostic query rewriting for OWL QL. In *28th International Workshop on Description Logics (DL2015)*, Athens, Greece, June 2015. Extended Abstract (full paper at ISWC2014).
- [11] Stefan Bischof, Christoph Martin, Axel Polleres, and Patrik Schneider. Open City Data Pipeline: Collecting, Integrating, and Predicting Open City Data. In *4th Workshop on Knowledge Discovery and Data Mining Meets Linked Open Data (Know@LOD)*, Portoroz, Slovenia, May 2015.
- [12] Jürgen Umbrich, Sebastian Neumaier, and Axel Polleres. Towards assessing the quality evolution of open data portals. In *ODQ2015: Open Data Quality: from Theory to Practice Workshop*, Munich, Germany, March 2015.
- [13] Jürgen Umbrich, Aidan Hogan, Axel Polleres, and Stefan Decker. Link traversal querying for a diverse web of data. *Semantic Web – Interoperability, Usability, Applicability (SWJ)*, 6(6):585–624, 2015.

## 2014

- [1] Axel Polleres. SPARQL. In Reda Alhajj and Jon G. Rokne, editors, *Encyclopedia of Social Network Analysis and Mining*, pages 1960–1966. Springer, 2014.
- [2] Stefan Bischof, Markus Krötzsch, Axel Polleres, and Sebastian Rudolph. Schema-agnostic query rewriting in SPARQL 1.1. In *Proceedings of the 13th International Semantic Web Conference (ISWC 2014)*, *Lecture Notes in Computer Science (LNCS)*. Springer, October 2014.
- [3] Carlos Buil-Aranda, Axel Polleres, and Jürgen Umbrich. Strategies for executing federated queries in SPARQL1.1. In *Proceedings of the 13th International Semantic Web Conference (ISWC 2014)*, *Lecture Notes in Computer Science (LNCS)*. Springer, October 2014.

- [4] Albin Ahmeti, Diego Calvanese, and Axel Polleres. Updating RDFS ABoxes and TBoxes in SPARQL. In *Proceedings of the 13th International Semantic Web Conference (ISWC 2014)*, Lecture Notes in Computer Science (LNCS). Springer, October 2014.
- [5] Daniele Dell’Aglio, Axel Polleres, Nuno Lopes, and Stefan Bischof. Querying the web of data with XSPARQL 1.1. In *ISWC2014 Developers Workshop*, volume 1268 of *CEUR Workshop Proceedings*. CEUR-WS.org, October 2014.
- [6] Pascal Hitzler, Jens Lehmann, and Axel Polleres. Logics for the semantic web. In Dov M. Gabbay, Jörg H. Siekmann, and John Woods, editors, *Computational Logic*, volume 9 of *Handbook of the History of Logic*, pages 679–710. Elsevier, 2014.
- [7] Gottfried Schenner, Stefan Bischof, Axel Polleres, and Simon Steyskal. Integrating distributed configurations with RDFS and SPARQL. In *16th International Configuration Workshop*, Novi Sad, Serbia, September 2014.
- [8] Aidan Hogan, Marcelo Arenas, Alejandro Mallea, and Axel Polleres. Everything you always wanted to know about blank nodes. *Journal of Web Semantics (JWS)*, 27:42–69, 2014.
- [9] Albin Ahmeti, Diego Calvanese, and Axel Polleres. SPARQL Update for Materialized Triple Stores under DL-Lite<sub>RDFS</sub> Entailment. In *27th International Workshop on Description Logics (DL2014)*, Vienna, Austria, July 2014.
- [10] Carlos Buil-Aranda and Axel Polleres. In Georg Gottlob and Jorge Pérez, editors, *Alberto Mendelzon International Workshop on Foundations of Data Management (AMW2014)*, volume 1189 of *CEUR Workshop Proceedings*. CEUR-WS.org, June 2014.
- [11] Jürgen Umbrich, Marcel Karnstedt, Axel Polleres, and Kai-Uwe Sattler. Index-based source selection and optimization. In Katja Hose, Ralf Schenk, and Andreas Harth, editors, *Linked Data Management*, pages 311–337. Chapman and Hall/CRC, May 2014.

## 2013

- [1] Marina Gueroussova, Axel Polleres, and Sheila A. McIlraith. SPARQL with qualitative and quantitative preferences. In Emanuele Della Valle, Markus Krötzsch, Stefan Schlobach, and Irene Celino, editors, *2nd International Workshop on Ordering and Reasoning (OrdRing 2013)*, CEUR Workshop Proceedings, Sydney, Australia, October 2013. CEUR-WS.org. Position Paper. Technical Report version available at: <ftp://ftp.cs.toronto.edu/csrg-technical-reports/619/619.pdf>.
- [2] Albin Ahmeti and Axel Polleres. SPARQL update under RDFS entailment in fully materialized and redundancy-free triple stores. In *2nd International Workshop on Ordering and Reasoning (OrdRing 2013)*, CEUR Workshop Proceedings, Sydney, Australia, October 2013. CEUR-WS.org.

- [3] Simon Steyskal and Axel Polleres. Mix'n'match: Iteratively combining ontology matchers in an anytime fashion. In *8th International Workshop on Ontology Matching*, volume 111 of *CEUR Workshop Proceedings*, Sydney, Australia, October 2013. CEUR-WS.org. Extended version available at: <http://www.steyskal.info/om2013/extendedversion.pdf>.
- [4] Simon Steyskal and Axel Polleres. Mix'n'match: An alternative approach for combining ontology matchers. In *12th International Conference on Ontologies, DataBases, and Applications of Semantics (ODBASE 2013)*, Lecture Notes in Computer Science (LNCS), Graz, Austria, September 2013. Springer. Short paper.
- [5] Axel Polleres. Building blocks for a linked data ecosystem. In Andreas Harth, Craig A. Knoblock, Kai-Uwe Sattler, and Rudi Studer, editors, *Report from Dagstuhl Seminar 13252 Interoperation in Complex Information Ecosystems*, pages 116–118. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, June 2013. Position Statement.
- [6] Axel Polleres, Melanie Frühstück, Gottfried Schenner, and Gerhard Friedrich. Debugging non-ground ASP programs with choice rules, cardinality constraints and weight constraints. In Pedro Cabalar and Tran Cao Son, editors, *Proceedings of the 12th International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR-2013)*, volume 8148 of *Lecture Notes in Computer Science (LNCS)*, pages 452–464, Corunna, Spain, September 2013. Springer.
- [7] Stefan Bischof, Axel Polleres, and Simon Sperl. City data pipeline - a system for making open data useful for cities. In Steffen Lohmann, editor, *Proceedings of the ISEMANTICS 2013 Posters & Demonstrations Track*, volume 1026 of *CEUR Workshop Proceedings*, pages 45–49, Graz, Austria, September 2013. CEUR-WS.org.
- [8] Axel Polleres, Aidan Hogan, Renaud Delbru, and Jürgen Umbrich. RDFS & OWL reasoning for linked data. In Sebastian Rudolph, Georg Gottlob, Ian Horrocks, and Frank van Harmelen, editors, *Reasoning Web. Semantic Technologies for Intelligent Data Access (Reasoning Web 2013)*, volume 8067 of *Lecture Notes in Computer Science (LNCS)*, pages 91–149. Springer, Mannheim, Germany, July 2013.
- [9] Stefan Bischof and Axel Polleres. RDFS with attribute equations via SPARQL rewriting. In Philipp Cimiano, Oscar Corcho, Valentina Presutti, Laura Hollink, and Sebastian Rudolph, editors, *The Semantic Web: Semantics and Big Data – Proceedings of the 10th ESWC (ESWC2013)*, volume 7882 of *Lecture Notes in Computer Science (LNCS)*, pages 335–350, Montpellier, France, May 2013. Springer.
- [10] Reinhard Pichler, Axel Polleres, Sebastian Skritek, and Stefan Woltran. Complexity of redundancy detection on rdf graphs in the presence of rules, constraints, and queries. *Semantic Web – Interoperability, Usability, Applicability (SWJ)*, 4(4), 2013.
- [11] Javier D. Fernández, Miguel A. Martínez-Prieto, Claudio Gutiérrez, Axel Polleres, and Mario Arias. Binary RDF Representation for Publication and Exchange (HDT). *Journal of Web Semantics (JWS)*, 19(2), 2013.

- [12] Ratnesh Sahay, Antoine Zimmermann, Ronan Fox, Axel Polleres, and Manfred Hauswirth. A formal investigation of semantic interoperability of HCLS systems. In Miguel-Angel Sicilia and Pablo Serrano-Balazote, editors, *Interoperability in Healthcare Information Systems: Standards, Management, and Technology*. IGI Global, February 2013.
- [13] Axel Polleres. Agreement technologies and the semantic web. In Sascha Ossowski, editor, *Agreement Technologies*, volume 8 of *Law, Governance and Technology Series*, pages 57–68. Springer, January 2013.
- [14] Carlos Buil-Aranda, Marcelo Arenas, Oscar Corcho, and Axel Polleres. Federating queries in SPARQL1.1: Syntax, semantics and evaluation. *Journal of Web Semantics (JWS)*, 18(1), 2013.
- [15] Axel Polleres and Johannes Wallner. On the relation between SPARQL1.1 and answer set programming. *Journal of Applied Non-Classical Logics (JANCL)*, 23(1–2):159–212, 2013. Special issue on Equilibrium Logic and Answer Set Programming.
- [16] Olivier Boissier, Marco Colombetti, Michael Luck, John-Jules Meyer, and Axel Polleres. Norms, organizations, and semantics. *The Knowledge Engineering Review*, 28(1):107–116, March 2013.

## 2012

- [1] Stefan Bischof, Stefan Decker, Thomas Krennwallner, Nuno Lopes, and Axel Polleres. Mapping between RDF and XML with XSPARQL. *Journal on Data Semantics (JoDS)*, 1(3):147–185, 2012.
- [2] Axel Polleres. How (well) do datalog, SPARQL and RIF interplay? In Pablo Barceló and Reinhard Pichler, editors, *Datalog in Academia and Industry – Second International Workshop, Datalog 2.0*, volume 7494 of *Lecture Notes in Computer Science (LNCS)*, pages 27–30. Springer, September 2012. Invited tutorial, slides available at [http://www.polleres.net/presentations/20120913Datalog20\\_Tutorial.pdf](http://www.polleres.net/presentations/20120913Datalog20_Tutorial.pdf).
- [3] Jürgen Umbrich, Aidan Hogan, Axel Polleres, and Stefan Decker. Improving the recall of live linked data querying through reasoning. In Markus Krötzsch and Umberto Straccia, editors, *Web Reasoning and Rule Systems – 6th International Conference, RR2012*, volume 7497 of *Lecture Notes in Computer Science (LNCS)*, pages 188–204, Vienna, Austria, September 2012. Springer.
- [4] Anna Ryabokon, Axel Polleres, Gerhard Friedrich, Andreas Falkner, Alois Haselböck, and Herwig Schreiner. (Re)Configuration using Web Data: a case study on the reviewer assignment problem. In Markus Krötzsch and Umberto Straccia, editors, *Web Reasoning and Rule Systems – 6th International Conference, RR2012*, volume 7497 of *Lecture Notes in Computer Science (LNCS)*, pages 258–261, Vienna, Austria, September 2012. Springer. Short paper.

- [5] Nuno Lopes, Sabrina Kirrane, Antoine Zimmermann, Axel Polleres, and Alessandra Mileo. A Logic Programming approach for Access Control over RDF. In Agostino Dovier and Vítor Santos Costa, editors, *Technical Communications of the ICLP 2012*, volume 17 of *LIPICs*, pages 381–392, Budapest, Hungary, September 2012. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik. Short paper.
- [6] Aidan Hogan, Jürgen Umbrich, Andreas Harth, Richard Cyganiak, Axel Polleres, and Stefan Decker. An empirical survey of linked data conformance. *Journal of Web Semantics (JWS)*, 14:14–44, July 2012.
- [7] Jürgen Umbrich, Marcel Karnstedt, Josiane Xavier Parreira, Axel Polleres, and Manfred Hauswirth. Linked Data and Live Querying for Enabling Support Platforms for Web Dataspaces. In *Proceedings of the 3rd International Workshop on Data Engineering Meets the Semantic Web (DESWEB), co-located with ICDE2012*, Washington DC, USA, April 2012.
- [8] Antoine Zimmermann, Nuno Lopes, Axel Polleres, and Umberto Straccia. A general framework for representing, reasoning and querying with annotated semantic web data. *Journal of Web Semantics (JWS)*, 12:72–95, March 2012.
- [9] Aidan Hogan, Antoine Zimmermann, Jürgen Umbrich, Axel Polleres, and Stefan Decker. Scalable and distributed methods for resolving, consolidating, matching and disambiguating entities in linked data corpora. *Journal of Web Semantics (JWS)*, 10:76–110, January 2012.
- [10] Birte Glimm, Aidan Hogan, Markus Krötzsch, and Axel Polleres. OWL: Yet to arrive on the web of data? In *WWW2012 Workshop on Linked Data on the Web (LDOW2012)*, Lyon, France, April 2012.
- [11] Tobias Käfer, Jürgen Umbrich, Aidan Hogan, and Axel Polleres. Towards a dynamic linked data observatory. In *WWW2012 Workshop on Linked Data on the Web (LDOW2012)*, Lyon, France, April 2012.

## 2011

- [1] Alejandro Mallea, Marcelo Arenas, Aidan Hogan, and Axel Polleres. On Blank Nodes. In *Proceedings of the 10th International Semantic Web Conference (ISWC 2011)*, volume 7031 of *Lecture Notes in Computer Science (LNCS)*, Bonn, Germany, October 2011. Springer. **Nominated for best paper award.**
- [2] Aidan Hogan, Andreas Harth, Jürgen Umbrich, Sheila Kinsella, Axel Polleres, and Stefan Decker. Searching and browsing linked data with SWSE: The semantic web search engine. *Journal of Web Semantics (JWS)*, 9(4):365–401, 2011.
- [3] Aidan Hogan, Piero Bonatti, Axel Polleres, and Luigi Sauro. Robust and scalable linked data reasoning incorporating provenance and trust annotations. *Journal of Web Semantics (JWS)*, 9(2):165–201, 2011.

- [4] Andreas Harth Aidan Hogan and Axel Polleres. Scalable authoritative owl reasoning for the web. In Amit Sheth, editor, *Semantic Services, Interoperability and Web Applications: Emerging Concepts*, pages 131–177. IGI Global, June 2011. Invited re-publication.
- [5] Andreas Harth, Barry Norton, Axel Polleres, Brahmananda Sapkota, Sebastian Speiser, Steffen Stadtmüller, and Osma Suominen. Towards uniform access to web data and services. In *W3C Workshop on Data and Services Integration*, Bedford, MA, USA, October 2011.
- [6] Javier D. Fernández, Miguel A. Martínez-Prieto, Claudio Gutierrez, and Axel Polleres. Binary RDF Representation for Publication and Exchange (HDT), March 2011. W3C member submission.
- [7] Jürgen Umbrich, Katja Hose, Marcel Karnstedt, Andreas Harth, and Axel Polleres. Comparing data summaries for processing live queries over linked data. *World Wide Web Journal*, 14(5–6):495–544, 2011.
- [8] Axel Polleres. Semantic Web Technologies: From Theory to Practice, March 2011. Kumulative Habilitationsschrift zur Erlangung der Lehrbefugnis im Fach “Informationssysteme”.
- [9] Jos de Bruijn, Thomas Eiter, Axel Polleres, and Hans Tompits. Embedding non-ground logic programs into autoepistemic logic for knowledge base combination. *ACM Transactions on Computational Logic*, 12(3), 2011.
- [10] Ratnesh Sahay, Ronan Fox, Antoine Zimmermann, Axel Polleres, and Manfred Hauswirth. A methodological approach for ontologising and aligning health level seven (HL7) applications. In *MISI (Massive Information Sharing and Integration) Conference - Special Track on Electronic Healthcare (SALUS 2011)*, Vienna, Austria, August 2011.
- [11] Stefan Bischof, Nuno Lopes, and Axel Polleres. Improve efficiency of mapping data between XML and RDF with XSPARQL. In *Web Reasoning and Rule Systems – Fifth International Conference, RR2011*, volume 6902 of *Lecture Notes in Computer Science (LNCS)*, pages 232–237, Galway, Ireland, August 2011. Springer. Short paper.
- [12] Renaud Delbru, Giovanni Tummarello, and Axel Polleres. Context-dependent OWL reasoning in sindice - experiences and lessons learnt. In *Web Reasoning and Rule Systems – Fifth International Conference, RR2011*, volume 6902 of *Lecture Notes in Computer Science (LNCS)*, pages 46–60, Galway, Ireland, August 2011. Springer.
- [13] Nuno Lopes, Stefan Bischof, and Axel Polleres. On the semantics of heterogeneous querying of relational, XML, and RDF data with XSPARQL. In *Proceedings of the 15th Portuguese Conference on Artificial Intelligence (EPIA2011) – Computational Logic with Applications Track*, Lisbon, Portugal, October 2011.



- [14] Anca Dumitrache, Alessandra Mileo, Antoine Zimmermann, Axel Polleres, Philipp Obermeier, and Owen Friel. Enabling privacy-preserving semantic presence in instant messaging systems. In *7th International and Interdisciplinary Conference on Modeling and Using Context 2011 (CONTEXT'11)*, Karlsruhe, Germany, September 2011.
- [15] Axel Polleres, Claudia D'Amato, Marcelo Arenas, Siegfried Handschuh, Paula Kroner, Sascha Ossowski, and Peter Patel-Schneider, editors. *Reasoning Web. Semantic Technologies for the Web of Data. (Reasoning Web 2011)*, volume 6848 of *Lecture Notes in Computer Science (LNCS)*. Springer, Galway, Ireland, August 2011.
- [16] Aidan Hogan, Jeff Z. Pan, Axel Polleres, and Yuan Ren. Scalable OWL 2 reasoning for linked data. In Axel Polleres, Claudia D'Amato, Marcelo Arenas, Siegfried Handschuh, Paula Kroner, Sascha Ossowski, and Peter Patel-Schneider, editors, *Reasoning Web. Semantic Technologies for the Web of Data. (Reasoning Web 2011)*, volume 6848 of *Lecture Notes in Computer Science (LNCS)*, pages 250–325. Springer, Galway, Ireland, August 2011.

## 2010

- [1] Axel Polleres and Huajun Chen, editors. *Proceedings of the ISWC 2010 Posters & Demonstrations Track: Collected Abstracts*, volume 658 of *CEUR Workshop Proceedings*, Shanghai, China, November 2010. CEUR-WS.org.
- [2] Nuno Lopes, Axel Polleres, Umberto Straccia, and Antoine Zimmermann. AnQL: SPARQLing up annotated RDFS. In *Proceedings of the 9th International Semantic Web Conference (ISWC 2010)*, volume 6496 of *Lecture Notes in Computer Science (LNCS)*, Shanghai, China, November 2010. Springer.
- [3] Aidan Hogan, Jeff Z. Pan, Axel Polleres, and Stefan Decker. SAOR: Template rule optimisations for distributed reasoning over 1 billion linked data triples. In *Proceedings of the 9th International Semantic Web Conference (ISWC 2010)*, volume 6496 of *Lecture Notes in Computer Science (LNCS)*, Shanghai, China, November 2010. Springer.
- [4] Axel Polleres, Aidan Hogan, Andreas Harth, and Stefan Decker. Can we ever catch up with the web? *Semantic Web – Interoperability, Usability, Applicability (SWJ)*, 1(1-2):45–52, 2010.
- [5] Manfred Hauswirth, Jérôme Euzenat, Owen Friel, Keith Griffin, Pat Hession, Brendan Jennings, Tudor Groza, Siegfried Handschuh, Ivana Podnar Zarko, Axel Polleres, and Antoine Zimmermann. Towards consolidated presence. In *The 6th International Conference on Collaborative Computing: Networking, Applications and Worksharing (CollaborateCom 2010)*, Chicago, Illinois, USA, October 2010. IEEE Computer Society. Invited paper.
- [6] Axel Polleres. Semantic web technologies: From theory to standards. In *21st National Conference on Artificial Intelligence and Cognitive Science (AICS2010)*, Galway, Ireland, August 2010. Review paper (appeared in the informal conference proceedings).

- [7] Reinhard Pichler, Axel Polleres, Sebastian Skritek, and Stefan Woltran. Redundancy elimination on RDF graphs in the presence of rules, constraints, and queries. In Pascal Hitzler and Thomas Lukasiewicz, editors, *Web Reasoning and Rule Systems – Fourth International Conference, RR2010*, volume 6333 of *Lecture Notes in Computer Science (LNCS)*, pages 133–148, Bressanone, Italy, September 2010. Springer. **Best paper award**, technical report version available at <http://polleres.net/publications/DERI-TR-2010-04-23.pdf>.
- [8] Philipp Obermeier, Marco Marano, and Axel Polleres. Processing RIF and OWL2RL within DLVHEX. In Pascal Hitzler and Thomas Lukasiewicz, editors, *Web Reasoning and Rule Systems – Fourth International Conference, RR 2010*, volume 6333 of *Lecture Notes in Computer Science (LNCS)*, pages 244–250, Bressanone, Italy, September 2010. Springer. Demo Paper.
- [9] Axel Polleres. SPARQL1.1: new features and friends (OWL2, RIF). In Pascal Hitzler and Thomas Lukasiewicz, editors, *Web Reasoning and Rule Systems – Fourth International Conference, RR2010*, volume 6333 of *Lecture Notes in Computer Science (LNCS)*, pages 23–26, Bressanone, Italy, September 2010. Springer. Slides available at [http://www.polleres.net/RR2010\\_SPARQL11\\_Tutorial/](http://www.polleres.net/RR2010_SPARQL11_Tutorial/).
- [10] Umberto Straccia, Nuno Lopes, Gergely Lukácsy, and Axel Polleres. A general framework for representing and reasoning with annotated semantic web data. In *Proceedings of the 24th AAAI Conference on Artificial Intelligence (AAAI 2010), Special Track on Artificial Intelligence and the Web*, Atlanta, Georgia, USA, July 2010.
- [11] Nuno Lopes, Stefan Bischof, Orri Erling, Axel Polleres, Alexandre Passant, Diego Berrueta, Antonio Campos, Jérôme Euzenat, Kingsley Idehen, Stefan Decker, Stéphane Corlosquet, Jacek Kopecký, Janne Saarela, Thomas Krennwallner, Davide Palmisano, and Michal Zaremba. RDF and XML: Towards a unified query layer. In *W3C Workshop on RDF Next Steps*, Stanford, Palo Alto, CA, USA, June 2010.
- [12] Nuno Lopes, Antoine Zimmermann, Aidan Hogan, Gergely Lukácsy, Axel Polleres, Umberto Straccia, and Stefan Decker. RDF needs annotations. In *W3C Workshop on RDF Next Steps*, Stanford, Palo Alto, CA, USA, June 2010.
- [13] María-Esther Vidal, Edna Ruckhaus, Tomas Lampo, Amadís Marínez, Javier Sierra, and Axel Polleres. On the efficiency of joining group patterns in SPARQL queries. In *Proceedings of the 7th European Semantic Web Conference (ESWC2010)*, Heraklion, Greece, May 2010. Springer.
- [14] Jeff Z. Pan, Axel Polleres, and Aidan Hogan. Scalable owl reasoning for linked data, May 2010. Slides available at <http://www.abdn.ac.uk/~csc280/tutorial/eswc2010/>.
- [15] Aidan Hogan, Axel Polleres, Jürgen Umbrich, and Antoine Zimmermann. Some entities are more equal than others: statistical methods to consolidate linked data. In *Workshop*

*on New Forms of Reasoning for the Semantic Web: Scalable & Dynamic (NeFoRS10)*, Heraklion, Greece, May 2010.

- [16] Philipp Kärger, Daniel Olmedilla, Alexandre Passant, and Axel Polleres, editors. *Proceedings of the Second Workshop on Trust and Privacy on the Social and Semantic Web (SPOT2010)*, volume 576 of *CEUR Workshop Proceedings*, Heraklion, Greece, May 2010. CEUR-WS.org.
- [17] Reinhard Pichler, Axel Polleres, Sebastian Skritek, and Stefan Woltran. Minimising rdf graphs under rules and constraints revisited. In *4th Alberto Mendelzon Workshop on Foundations of Data Management*, volume 494 of *CEUR Workshop Proceedings*. CEUR-WS.org, May 2010.
- [18] Andreas Harth, Katja Hose, Marcel Karnstedt, Axel Polleres, Kai-Uwe Sattler, and Jürgen Umbrich. Data summaries for on-demand queries over linked data. In *Proceedings of the 19th World Wide Web Conference (WWW2010)*, Raleigh, NC, USA, April 2010. Technical report version available at <http://polleres.net/publications/DERI-TR-2009-11-17.pdf>.
- [19] Jürgen Umbrich, Michael Hausenblas, Aidan Hogan, Axel Polleres, and Stefan Decker. Towards dataset dynamics: Change frequency of linked open data sources. In *3rd International Workshop on Linked Data on the Web (LDOW2010) at WWW2010*, Raleigh, USA, April 2010.
- [20] Aidan Hogan, Andreas Harth, Alexandre Passant, Stefan Decker, and Axel Polleres. Weaving the pedantic web. In *3rd International Workshop on Linked Data on the Web (LDOW2010) at WWW2010*, Raleigh, USA, April 2010.
- [21] Jos de Bruijn, David Pearce, Axel Polleres, and Agustín Valverde. A semantical framework for hybrid knowledge bases. *Knowledge and Information Systems (KAIS)*, 25(1):81–104, 2010.
- [22] Julian Padget, Alexander Artikis, Wamberto Vasconcelos, Kostas Stathis, Viviane Torres da Silva, Eric Matson, and Axel Polleres, editors. *Coordination, Organizations, Institutions, and Norms in Agent Systems V*, volume 6069 of *Lecture Notes in AI (LNAI)*. Springer, 2010.

## 2009

- [1] Antoine Zimmermann, Ratnesh Sahay, Ronan Fox, and Axel Polleres. Heterogeneity and context in semantic-web-enabled HCLS systems. In Robert Meersman, Tharam S. Dillon, and Pilar Herrero, editors, *OTM 2009, Part II: Proceedings of the 8th International Conference on Ontologies, DataBases, and Applications of Semantics (ODBASE 2009)*, volume 5871 of *Lecture Notes in Computer Science (LNCS)*, pages 1165–1182, Vilamoura, Algarve, Portugal, November 2009. Springer.

- [2] Axel Polleres and Terrance Swift, editors. *Web Reasoning and Rule Systems – Third International Conference, RR2009*, volume 5837 of *Lecture Notes in Computer Science (LNCS)*, Chantilly, VA, USA, October 2009. Springer.
- [3] Stéphane Corlosquet, Renaud Delbru, Tim Clark, Axel Polleres, and Stefan Decker. Produce and consume linked data with drupal! In Abraham Bernstein, David R. Karger, Tom Heath, Lee Feigenbaum, Diana Maynard, Enrico Motta, and Krishnaprasad Thirunarayan, editors, *Proceedings of the 8th International Semantic Web Conference (ISWC 2009)*, volume 5823 of *Lecture Notes in Computer Science (LNCS)*, pages 763–778, Washington DC, USA, October 2009. Springer. **Best paper award In-Use track.**
- [4] Giovambattista Ianni, Thomas Krennwallner, Alessandra Martello, and Axel Polleres. Dynamic querying of mass-storage rdf data with rule-based entailment regimes. In Abraham Bernstein, David R. Karger, Tom Heath, Lee Feigenbaum, Diana Maynard, Enrico Motta, and Krishnaprasad Thirunarayan, editors, *Proceedings of the 8th International Semantic Web Conference (ISWC 2009)*, volume 5823 of *Lecture Notes in Computer Science (LNCS)*, pages 310–327, Washington D, CUSA, October 2009. Springer.
- [5] Axel Polleres and David Huynh, editors. *Journal of Web Semantics, Special Issue: The Web of Data*, volume 7(3). Elsevier, 2009. Editorial.
- [6] Matteo Baldoni, Cristina Baroglio, Jamal Bentahar, Guido Boella, Massimo Cossentino, Mehdi Dastani, Barbara Dunin-Keplicz, Giancarlo Fortino, Marie-Pierre Gleizes, João Leite, Viviana Mascardi, Julian Padget, Juan Pavón, Axel Polleres, Amal El Fallah Seghrouchni, Paolo Torroni, and Rineke Verbrugge, editors. *Proceedings of the Second Multi-Agent Logics, Languages, and Organisations Federated Workshops (MALLOW’009)*, volume 494 of *CEUR Workshop Proceedings*, Torino, Italy, September 2009. CEUR-WS.org.
- [7] Michael Hausenblas, Philipp Kärger, Daniel Olmedilla, Alexandre Passant, and Axel Polleres, editors. *Proceedings of the First Workshop on Trust and Privacy on the Social and Semantic Web (SPOT2009)*, volume 447 of *CEUR Workshop Proceedings*, Heraklion, Greece, June 2009. CEUR-WS.org.
- [8] Stéphane Corlosquet, Richard Cyganiak, Axel Polleres, and Stefan Decker. Rdfa in drupal: Bringing cheese to the web of data. In *5th Workshop on Scripting and Development for the Semantic Web*, Heraklion, Greece, May 2009.
- [9] Aidan Hogan, Andreas Harth, and Axel Polleres. Scalable authoritative owl reasoning for the web. *International Journal on Semantic Web and Information Systems (IJSWIS)*, 5(2):49–90, 2009.
- [10] Giovambattista Ianni, Thomas Krennwallner, Alessandra Martello, and Axel Polleres. A rule system for querying persistent rdfs data. In *Proceedings of the 6th European*

*Semantic Web Conference (ESWC2009)*, Heraklion, Greece, May 2009. Springer. Demo Paper.

- [11] Axel Polleres and Malgorzata Mochol. Expertise bewerben und finden im Social Semantic Web. In Andreas Blumauer and Tassilo Pellegrini, editors, *Social Semantic Web*, pages 175–206. Springer, 2009. in German.
- [12] Danh Le Phuoc, Axel Polleres, Giovanni Tummarello, Christian Morbidoni, and Manfred Hauswirth. Rapid semantic web mashup development through semantic web pipes. In *Proceedings of the 18th World Wide Web Conference (WWW2009)*, pages 581–590, Madrid, Spain, April 2009. ACM Press.
- [13] Axel Polleres, Thomas Krennwallner, Nuno Lopes, Jacek Kopecký, and Stefan Decker. XSPARQL Language Specification, January 2009. W3C member submission.
- [14] Thomas Krennwallner, Nuno Lopes, and Axel Polleres. XSPARQL: Semantics, January 2009. W3C member submission.
- [15] Nuno Lopes, Thomas Krennwallner, Axel Polleres, Waseem Akhtar, and Stéphane Corlosquet. XSPARQL: Implementation and Test-cases, January 2009. W3C member submission.
- [16] Alexandre Passant, Jacek Kopecký, Stéphane Corlosquet, Diego Berrueta, Davide Palmisano, and Axel Polleres. XSPARQL: Use cases, January 2009. W3C member submission.
- [17] Alexandre Passant, Philipp Kärger, Michael Hausenblas, Daniel Olmedilla, Axel Polleres, and Stefan Decker. Enabling trust and privacy on the social web. In *W3C Workshop on the Future of Social Networking*, Barcelona, Spain, January 2009.
- [18] John Breslin, Stefan Decker, Manfred Hauswirth, Gearoid Hynes, Danh Le Phuoc, Alexandre Passant, Axel Polleres, Cornelius Rabsch, and Vinny Reynolds. Integrating social networks and sensor networks. In *W3C Workshop on the Future of Social Networking*, Barcelona, Spain, January 2009.

## 2008

- [1] Jos de Bruijn, Stijn Heymans, David Pearce, Axel Polleres, and Edna Ruckhaus, editors. *Proceedings of the 3rd International Workshop on Applications of Logic Programming to the (Semantic) Web and Web Services (ALPSWS2008)*, volume 434 of *CEUR Workshop Proceedings*, Udine, Italy, December 2008. CEUR-WS.org.
- [2] Jérôme Euzenat, Axel Polleres, and François Scharffe. SPARQL extensions for processing alignments. *IEEE Intelligent Systems*, 23(6):82–84, November 2008. Appeared as part of the article “Making Ontologies Talk: Knowledge Interoperability in the Semantic Web”, Monika Lanzemberger and Jennifer Sampson (eds.).

- [3] Philipp Kärger, Nuno Lopes, Daniel Olmedilla, and Axel Polleres. Towards logic programs with ordered and unordered disjunction. In *Workshop on Answer Set Programming and Other Computing Paradigms (ASPOCP 2008)*, December 2008.
- [4] Aidan Hogan, Andreas Harth, and Axel Polleres. SAOR: Authoritative Reasoning for the Web. In John Domingue and Chutiporn Anutariya, editors, *Proceedings of the 3rd Asian Semantic Web Conference (ASWC 2008)*, volume 5367 of *Lecture Notes in Computer Science (LNCS)*, pages 76–90, Bangkok, Thailand, December 2008.
- [5] Aidan Hogan, Andreas Harth, and Axel Polleres. Scalable authoritative OWL reasoning on a billion triples. In *ISWC2008 Semantic Web Challenge 2008 – Billion Triples Track*, Karlsruhe, Germany, October 2008.
- [6] Malgorzata Mochol, Anna V. Zhdanova, Lyndon Nixon, John Breslin, and Axel Polleres, editors. *Proceedings of the 3rd Expert Finder Workshop on Personal Identification and Collaborations: Knowledge Mediation and Extraction (PICKME 2008)*, volume 403 of *CEUR Workshop Proceedings*, Karlsruhe, Germany, October 2008. CEUR-WS.org.
- [7] Renaud Delbru, Axel Polleres, Giovanni Tummarello, and Stefan Decker. Context dependent reasoning for semantic documents in sindice. In *Proceedings of the 4th International Workshop on Scalable Semantic Web Knowledge Base Systems (SSWS 2008)*, Karlsruhe, Germany, October 2008.
- [8] Alberto Fernandez, Conor Hayes, Nikos Loutas, Vassilios Peristeras, Axel Polleres, and Konstantinos Tarabanis. Closing the Service Discovery Gap by Collaborative Tagging and Clustering Techniques. In *Proceedings of 2nd International Workshop on Service Matchmaking and Resource Retrieval in the Semantic Web (SMR<sup>2</sup> 2008)*, Karlsruhe, Germany, October 2008.
- [9] Matthias Klusch, Michal Pechoucek, and Axel Polleres, editors. *Cooperative Information Agents XII*, volume 5180 of *Lecture Notes in Computer Science (LNCS)*, Prague, Czech Republic, September 2008. Springer.
- [10] Cristina Baroglio, Piero A. Bonatti, Jan Maluszynski, Massimo Marchiori, Axel Polleres, and Sebastian Schaffert, editors. *Reasoning Web 2008*, volume 5224 of *Lecture Notes in Computer Science (LNCS)*. Springer, San Servolo Island, Venice, Italy, September 2008.
- [11] Thomas Eiter, Giovambattista Ianni, Thomas Krennwallner, and Axel Polleres. Rules and ontologies for the semantic web. In Cristina Baroglio, Piero A. Bonatti, Jan Maluszynski, Massimo Marchiori, Axel Polleres, and Sebastian Schaffert, editors, *Reasoning Web 2008*, volume 5224 of *Lecture Notes in Computer Science (LNCS)*, pages 1–53. Springer, San Servolo Island, Venice, Italy, September 2008.
- [12] Hong-Linh Truong, Schahram Dustdar, Dino Baggio, Stéphane Corlosquet, Christoph Dorn, Giovanni Giuliani, Robert Gombotz, Yi Hong, Pete Kendal, Christian Melchiorre, Sarit Moretzky, Sébastien Peray, Axel Polleres, Stephan Reiff-Marganiec,

Daniel Schall, Simona Stringa, Marcel Tilly, and Hong Qing Yu. incontext: a pervasive and collaborative working environment for emerging team forms. In *International Symposium on Applications and the Internet (SAINT 2008)*, pages 118–125, Turku, Finland, July 2008. IEEE Computer Society.

- [13] Waseem Akhtar, Jacek Kopecky, Thomas Krennwallner, and Axel Polleres. XSPARQL: Traveling between the XML and RDF worlds – and avoiding the XSLT pilgrimage. In *Proceedings of the 5th European Semantic Web Conference (ESWC2008)*, volume 5021 of *Lecture Notes in Computer Science (LNCS)*, pages 432–447, Tenerife, Spain, June 2008. Springer. **Nominated for best paper award.**
- [14] Reinhard Pichler, Axel Polleres, Fang Wei, and Stefan Woltran. Entailment for domain-restricted RDF. In *Proceedings of the 5th European Semantic Web Conference (ESWC2008)*, volume 5021 of *Lecture Notes in Computer Science (LNCS)*, pages 200–214, Tenerife, Spain, June 2008. Springer.
- [15] Christian Morbidoni, Danh Le Phuoc, Axel Polleres, Matthias Samwald, and Giovanni Tummarello. Previewing semantic web pipes. In *Proceedings of the 5th European Semantic Web Conference (ESWC2008)*, pages 843–848, Tenerife, Spain, June 2008. Springer. Demo Paper.
- [16] Hong-Linh Truong, Christoph Dorn, Giovanni Casella, Axel Polleres, Stephan Reiff-Marganiec, and Schahram Dustdar. incontext: On coupling and sharing context for collaborative teams. In *14th International Conference of Concurrent Enterprising (ICE 2008)*, pages 225–232, Lisboa, Portugal, June 2008.
- [17] Jérôme Euzenat, Axel Polleres, and François Scharffe. Processing ontology alignments with SPARQL. In *International Workshop on Ontology Alignment and Visualization - OnAV'08, Proceedings of the Second International Conference on Complex, Intelligent and Software Intensive Systems*, pages 913–917, Barcelona, Spain, March 2008. IEEE Computer Society.

## 2007

- [1] Christian Morbidoni, Axel Polleres, and Giovanni Tummarello. Who the FOAF knows Alice? RDF Revocation in DBin 2.0. In *4th Italian Semantic Web Workshop SEMANTIC WEB APPLICATIONS AND PERSPECTIVES (SWAP)*, Bari, Italy, December 2007.
- [2] Andreas Harth, Axel Polleres, and Stefan Decker. Towards a social provenance model for the web. In *Workshop on Principles of Provenance (PrOPr)*, Edinburgh, Scotland, November 2007.
- [3] Axel Polleres, François Scharffe, and Roman Schindlauer. SPARQL++ for mapping between RDF vocabularies. In *OTM 2007, Part I: Proceedings of the 6th International Conference on Ontologies, DataBases, and Applications of Semantics (ODBASE 2007)*,

volume 4803 of *Lecture Notes in Computer Science (LNCS)*, pages 878–896, Vilamoura, Algarve, Portugal, November 2007. Springer.

- [4] Tommaso di Noia, Rubén Lara, Axel Polleres, Ioan Toma, Takahiro Kawamura, Matthias Klusch, Abraham Bernstein, Massimo Paolucci, Alain Leger, and David Martin, editors. *Proceedings of the SMR2 2007 Workshop on Service Matchmaking and Resource Retrieval in the Semantic Web (SMR<sup>2</sup> 2007)*, volume 243 of *CEUR Workshop Proceedings*, Busan, Korea, November 2007. CEUR-WS.org.
- [5] Alberto Fernandez, Axel Polleres, and Sascha Ossowski. Towards Fine-grained Service Matchmaking by Using Concept Similarity. In *Proceedings of the SMR2 2007 Workshop on Service Matchmaking and Resource Retrieval in the Semantic Web (SMR<sup>2</sup> 2007)*, volume 243 of *CEUR Workshop Proceedings*, pages 31–45, Busan, Korea, November 2007. CEUR-WS.org.
- [6] Christian Morbidoni, Axel Polleres, and Giovanni Tummarello. Who the FOAF knows Alice? A needed step towards Semantic Web Pipes. In *ISWC 2007 Workshop on New forms of Reasoning for the Semantic Web: Scaleable, Tolerant and Dynamic*, Busan, Korea, November 2007.
- [7] Stijn Heymans, David Pearce, Axel Polleres, Edna Ruckhaus, and Gopal Gupta, editors. *ALPSWS2007: 2nd International Workshop on Applications of Logic Programming in the Semantic Web and Semantic Web Services. Proceedings*, volume 287 of *CEUR Workshop Proceedings*, Porto, Portugal, September 2007. CEUR-WS.org.
- [8] Axel Polleres and Roman Schindlauer. dlhex-sparql: A SPARQL-compliant query engine based on dlhex. In *2nd International Workshop on Applications of Logic Programming to the Web, Semantic Web and Semantic Web Services (ALPSWS2007)*, volume 287 of *CEUR Workshop Proceedings*, pages 3–12, Porto, Portugal, September 2007. CEUR-WS.org.
- [9] Uldis Bojārs, John G. Breslin, Diego Berrueta, Dan Brickley, Stefan Decker, Sergio Fernández, Christoph Görn, Andreas Harth, Tom Heath, Kingsley Idehen, Kjetil Kjernsmo, Alistair Miles, Alexandre Passant, Axel Polleres, Luis Polo, and Michael Sintek. SIOC Core Ontology Specification, June 2007. W3C member submission.
- [10] Harold Boley, Michael Kifer, Paula-Lavinia Pătrânjan, and Axel Polleres. Rule interchange on the web. In *Reasoning Web 2007*, volume 4636 of *Lecture Notes in Computer Science (LNCS)*, pages 269–309. Springer, September 2007.
- [11] Holger Lausen, Rubén Lara, Axel Polleres, Jos de Bruijn, and Dumitru Roman. Chapter 7: Description – semantic annotation for web services. In Rudi Studer, Stephan Grimm, and Andreas Abecker, editors, *Semantic Web Services*, pages 179–209. Springer, 2007.
- [12] Martin Brain, Wolfgang Faber, Marco Maratea, Axel Polleres, Torsten Schaub, and Roman Schindlauer. What should an ASP solver output? a multiple position paper. In



Marina De Vos and Torsten Schaub, editors, *First International Workshop on Software Engineering for Answer Set Programming 2007 (SEA'07)*, pages 26–37, Tempe, AZ, May 2007.

- [13] David Pearce, Axel Polleres, Agustín Valverde, and Stefan Woltran, editors. *Workshop on Correspondence and Equivalence for Nonmonotonic Theories (CENT 2007) Working Notes*, volume 265 of *CEUR Workshop Proceedings*, Tempe, AZ, May 2007. CEUR-WS.org.
- [14] Jos de Bruijn, David Pearce, Axel Polleres, and Agustín Valverde. Quantified equilibrium logic and hybrid rules. In Massimo Marchiori, Jeff Z. Pan, and Christian de Sainte Marie, editors, *First International Conference on Web Reasoning and Rule Systems (RR2007)*, volume 4524 of *Lecture Notes in Computer Science (LNCS)*, pages 58–72, Innsbruck, Austria, June 2007. Springer.
- [15] Boanerges Aleman-Meza, Uldis Bojārs, Harold Boley, John G. Breslin, Malgorzata Mochol, Lyndon J.B. Nixon, Axel Polleres, and Anna V. Zhdanova. Combining RDF vocabularies for expert finding. In Enrico Franconi, Michael Kifer, and Wolfgang May, editors, *Proceedings of the 4th European Semantic Web Conference (ESWC2007)*, volume 4519 of *Lecture Notes in Computer Science (LNCS)*, pages 235–250, Innsbruck, Austria, June 2007. Springer. Slides available at <http://www.polleres.net/publications/alem-etal-2007eswc-slides.pdf>.
- [16] Marcelo Arenas, Claudio Gutierrez, Bijan Parsia, Jorge Pérez, Axel Polleres, and Andy Seaborne. SPARQL – where are we? current state, theory and practice, June 2007. Slides available at <http://www.polleres.net/sparqltutorial/>.
- [17] Axel Polleres. From SPARQL to rules (and back). In *Proceedings of the 16th World Wide Web Conference (WWW2007)*, pages 787–796, Banff, Canada, May 2007. ACM Press. Extended technical report version available at <http://www.polleres.net/TRs/GIA-TR-2006-11-28.pdf>, slides available at <http://www.polleres.net/publications/poll1-2007www-slides.pdf>.
- [18] John G. Breslin, Uldis Bojārs, Boanerges Aleman-Meza, Harold Boley, Malgorzata Mochol, Lyndon J.B. Nixon, Axel Polleres, and Anna V. Zhdanova. Finding experts using internet-based discussions in online communities and associated social networks. In *1st International ExpertFinder Workshop*, January 2007.
- [19] Jos de Bruijn, Thomas Eiter, Axel Polleres, and Hans Tompits. Embedding non-ground logic programs into autoepistemic logic for knowledge-base combination. In *Twentieth International Joint Conference on Artificial Intelligence (IJCAI'07)*, pages 304–309, Hyderabad, India, January 2007. AAAI.

## 2006

- [1] Jos de Bruijn, David Pearce, Axel Polleres, and Agustín Valverde. A logic for hybrid rules. In *RuleML 2006 Workshop: Ontology and Rule Integration*, November 2006.

- [2] Axel Polleres and Roman Schindlauer. SPAR<sup>2</sup>QL: From SPARQL to rules. In *International Semantic Web Conference (ISWC2006 – Posters Track)*, Athens, GA, USA, November 2006. Abstract, the full poster is available at <http://www.polleres.net/publications/poll-schi-2006-poster.pdf>.
- [3] Axel Polleres, Stefan Decker, Gopal Gupta, and Jos de Bruijn, editors. *ALPSWS2006: Applications of Logic Programming in the Semantic Web and Semantic Web Services. Proceedings*, volume 196 of *CEUR Workshop Proceedings*, Seattle, WA, August 2006. CEUR-WS.org.
- [4] Thomas Eiter, Giovambattista Ianni, Axel Polleres, Roman Schindlauer, and Hans Tompits. Reasoning with rules and ontologies. In P. Barahona et al., editor, *Reasoning Web 2006*, volume 4126 of *Lecture Notes in Computer Science (LNCS)*, pages 93–127. Springer, September 2006.
- [5] Dieter Fensel, Holger Lausen, Axel Polleres, Jos de Bruijn, Michael Stollberg, Dumitru Roman, and John Domingue. *Enabling Semantic Web Services : The Web Service Modeling Ontology*. Springer, 2006.
- [6] Jos de Bruijn, Thomas Eiter, Axel Polleres, and Hans Tompits. On representational issues about combinations of classical theories with nonmonotonic rules. In *Proceedings of the 1st International Conference on Knowledge Science, Engineering and Management (KSEM'06)*, volume 4092 of *Lecture Notes in Computer Science (LNCS)*, pages 1–22, Gullin, China, August 2006. Springer. Invited paper.
- [7] Axel Polleres, Cristina Feier, and Andreas Harth. Rules with contextually scoped negation. In *Proceedings of the 3rd European Semantic Web Conference (ESWC2006)*, volume 4011 of *Lecture Notes in Computer Science (LNCS)*, pages 332–347, Budva, Montenegro, June 2006. Springer.
- [8] Thomas Eiter, Giovambattista Ianni, Axel Polleres, and Roman Schindlauer. Answer set programming for the semantic web, June 2006. Slides available at <http://asptut.gibbi.com/>.
- [9] Jos de Bruijn, Holger Lausen, Axel Polleres, and Dieter Fensel. The web service modeling language: An overview. In *Proceedings of the 3rd European Semantic Web Conference (ESWC2006)*, volume 4011 of *Lecture Notes in Computer Science (LNCS)*, Budva, Montenegro, June 2006. Springer. **Nominated for the 7 Years Most Influential ESWC Paper award at ESWC2013.**
- [10] Axel Polleres, Holger Lausen, and Rubén Lara. Semantische Beschreibung von Web Services. In Tassilo Pellegrini and Andreas Blumauer, editors, *Semantic Web – Wege zur vernetzten Wissensgesellschaft*. Springer, June 2006. (in German).
- [11] Axel Polleres. Logic programs with contextually scoped negation. In *20th Workshop on Logic Programming (WLP 2006)*, Vienna, Austria, February 2006.

- [12] Thomas Eiter and Axel Polleres. Towards automated integration of guess and check programs in answer set programming: A meta-interpreter and applications. *Theory and Practice of Logic Programming (TPLP)*, 6(1-2):23–60, 2006.

## 2005

- [1] Martin Hepp, Axel Polleres, Frank van Harmelen, and Michael R. Genesereth, editors. *Proceedings of the First International Workshop on Mediation in Semantic Web Services (MEDIATE 2005)*, volume 168 of *CEUR Workshop Proceedings*, Amsterdam, The Netherlands, December 2005. CEUR-WS.org.
- [2] Jürgen Angele, Harold Boley, Jos de Bruijn, Dieter Fensel, Pascal Hitzler, Michael Kifer, Reto Krummenacher, Holger Lausen, Axel Polleres, and Rudi Studer. Web Rule Language (WRL), September 2005. W3C member submission.
- [3] Axel Polleres, Ioan Toma, and Dieter Fensel. Modeling services for the semantic grid. In *The Dagstuhl Seminar 05271 – Semantic Grid: The Convergence of Technologies*, May 2005. Extended Abstract.
- [4] Reto Krummenacher, Martin Hepp, Axel Polleres, Christoph Bussler, and Dieter Fensel. WWW or What is Wrong with Web Services. In Welf Löwe and Jean-Philippe Martin-Flatin, editors, *Proceedings of the 3rd European Conference on Web Services (ECOWS 2005)*, pages 235–243, Växjö, Sweden, November 2005. IEEE Computer Society.
- [5] Dieter Fensel, Uwe Keller, Holger Lausen, Axel Polleres, and Ioan Toma. What is wrong with Web service discovery. In *W3C Workshop on Frameworks for Semantics in Web Services*, Innsbruck, Austria, June 2005.
- [6] Jos de Bruijn, Christoph Bussler, John Domingue, Dieter Fensel, Martin Hepp, Uwe Keller, Michael Kifer, Birgitta König-Ries, Jacek Kopecky, Rubén Lara, Holger Lausen, Eyal Oren, Axel Polleres, Dumitru Roman, James Scicluna, and Michael Stollberg. Web Service Modeling Ontology (WSMO), June 2005. W3C member submission.
- [7] Jos de Bruijn, Dieter Fensel, Uwe Keller, Michael Kifer, Reto Krummenacher, Holger Lausen, Axel Polleres, and Livia Predoiu. Web Service Modeling Language (WSML), June 2005. W3C member submission.
- [8] Cristina Feier, Roman Dumitru, Axel Polleres, John Domingue, Michael Stollberg, and Dieter Fensel. Towards intelligent web services: The web service modeling ontology (WSMO). In *Proceedings of the 2005 International Conference on Intelligent Computing (ICIC'05)*, Hefei, China, August 2005.
- [9] Dumitru Roman, Uwe Keller, Holger Lausen, Jos de Bruijn, Rubén Lara, Michael Stollberg, Axel Polleres, Cristina Feier, Christoph Bussler, and Dieter Fensel. Web service modeling ontology. *Applied Ontology*, 2005.

- [10] Uwe Keller, Rubén Lara, Holger Lausen, Axel Polleres, and Dieter Fensel. Automatic location of services. In *Proceedings of the 2nd European Semantic Web Conference (ESWC2005)*, May 2005.
- [11] Jos De Bruijn, Axel Polleres, Rubén Lara, and Dieter Fensel. OWL DL vs. OWL Flight: Conceptual modeling and reasoning for the semantic web. In *Proceedings of the 14th World Wide Web Conference (WWW2005)*, pages 623–632, Chiba, Japan, May 2005. ACM Press.
- [12] Axel Polleres. Semantic web languages and semantic web services as application areas for answer set programming. In *The Dagstuhl Seminar 05171 – Nonmonotonic Reasoning, Answer Set Programming and Constraints*, May 2005. Extended Abstract.
- [13] Jos de Bruijn, Holger Lausen, Axel Polleres, and Dieter Fensel. The WSML rule languages for the semantic web. In *W3C Workshop on Rule Languages for Interoperability*, Washington, D.C., USA, April 2005.
- [14] Holger Lausen, Jos de Bruijn, Axel Polleres, and Dieter Fensel. WSML - a language framework for semantic web services. In *W3C Workshop on Rule Languages for Interoperability*, Washington, D.C., USA, April 2005.
- [15] James Scicluna and Axel Polleres. Semantic web service execution for WSMO based choreographies. In *Workshop on Semantic Web Applications at the 11th EUROMEDIA Conference*, Toulouse, France, April 2005.

## 2004

- [1] Jos De Bruijn, Axel Polleres, Rubén Lara, and Dieter Fensel. OWL DL vs. OWL Flight: Conceptual modeling and reasoning for the semantic web. Technical Report DERI-TR-2004-11-10, Digital Enterprise Research Institute (DERI), November 2004.
- [2] Michael Kifer, Rubén Lara, Axel Polleres, Chang Zhao, Uwe Keller, Holger Lausen, and Dieter Fensel. A logical framework for web service discovery. In *ISWC 2004 Workshop on Semantic Web Services: Preparing to Meet the World of Business Applications*, Hiroshima, Japan, November 2004.
- [3] Sinuhé Arroyo, Christoph Bussler, Jacek Kopecký, Rubén Lara, Axel Polleres, and Michał Zaremba. Web service capabilities and constraints in WSMO. In *W3C Workshop on Constraints and Capabilities for Web Services*, Oracle Conference Center, Redwood Shores, CA, USA, October 2004.
- [4] Rubén Lara, Dumitru Roman, Axel Polleres, and Dieter Fensel. A conceptual comparison of WSMO and OWL-S. In *Proceedings of the European Conference on Web Services (ECOWS 2004)*, volume 3250 of *Lecture Notes in Computer Science (LNCS)*, pages 254–269, Erfurt, Germany, September 2004.

- [5] Daniel Olmedilla, Rubén Lara, Axel Polleres, and Holger Lausen. Trust negotiation for semantic web services. In *Proceedings of the First International Workshop on Semantic Web Services and Web Process Composition (SWSWPC 2004)*, San Diego, California, USA, July 2004.
- [6] Jos De Bruijn and Axel Polleres. Towards an ontology mapping specification language for the semantic web. Technical Report DERI-TR-2004-06-30, Digital Enterprise Research Institute (DERI), June 2004.
- [7] Thomas Eiter, Wolfgang Faber, Gerald Pfeifer, and Axel Polleres. Declarative planning and knowledge representation in an action language. In Ioannis Vlahavas and Dimitris Vrakas, editors, *Intelligent Techniques for Planning*. IDEA Group Publishing, 2004.
- [8] Thomas Eiter and Axel Polleres. Towards automated integration of guess and check programs in answer set programming. In Vladimir Lifschitz and Ilkka Niemelä, editors, *Proceedings of the Seventh International Conference on Logic Programming and Non-monotonic Reasoning (LPNMR-7)*, number 2923 in Lecture Notes in AI (LNAI), pages 100–113, Fort Lauderdale, Florida, USA, January 2004. Springer.
- [9] Thomas Eiter, Wolfgang Faber, Nicola Leone, Gerald Pfeifer, and Axel Polleres. A Logic Programming Approach to Knowledge-State Planning: Semantics and Complexity. *ACM Transactions on Computational Logic*, 5(2):206–263, April 2004.

### 2003

- [1] Axel Polleres. *Advances in Answer Set Planning*. Thesis, Institut für Informationssysteme, Technische Universität Wien, Wien, Österreich, September 2003.
- [2] Thomas Eiter and Axel Polleres. Transforming coNP checks to answer set computation by meta-interpretation. In *Proceedings of the 2003 Joint Conference on Declarative Programming APPIA-GULP-PRODE 2003*, Reggio Calabria, Italy, September 2003.
- [3] Jürgen Dix, Thomas Eiter, Michael Fink, Axel Polleres, and Yingqian Zhang. Monitoring Agents using Declarative Planning. *Fundamenta Informaticae*, 57(2):345–370, November 2003.
- [4] Jürgen Dix, Thomas Eiter, Michael Fink, Axel Polleres, and Yingqian Zhang. Monitoring Agents using Declarative Planning. In *Proceedings of the 26th German Conference on Artificial Intelligence (KI2003)*, volume 2821 of *Lecture Notes in Computer Science (LNCS)*, pages 646–660. Springer, September 2003.
- [5] Thomas Eiter, Wolfgang Faber, Nicola Leone, Gerald Pfeifer, and Axel Polleres. A Logic Programming Approach to Knowledge-State Planning, II: the DLV<sup>K</sup> System. *Artificial Intelligence*, 144(1–2):157–211, March 2003.

## 2002

- [1] Axel Polleres. JELIA 2002. *COMPUTER kommunikativ*, 5/2002:28–29, 2002. Conference report.
- [2] Axel Polleres. Planen in der AI. *COMPUTER kommunikativ*, 5/2002:30–31, 2002. Conference report.
- [3] Axel Polleres. JELIA 2002. *ÖGAI Journal*, 21(4):23–25, 2002. Conference report.
- [4] Axel Polleres. PLANET International Summer School on AI Planning 2002, Chalkidiki, Griechenland. *ÖGAI Journal*, 21(4):26–29, 2002. Conference report.
- [5] Thomas Eiter, Wolfgang Faber, Nicola Leone, Gerald Pfeifer, and Axel Polleres. Answer Set Planning under Action Costs. *Journal of Artificial Intelligence Research (JAIR)*, 19:25–71, 2003.
- [6] Thomas Eiter, Wolfgang Faber, Nicola Leone, Gerald Pfeifer, and Axel Polleres. Answer Set Planning under Action Costs. In Sergio Flesca, Sergio Greco, Giovambattista Ianni, and Nicola Leone, editors, *Proceedings of the 8th European Conference on Artificial Intelligence (JELIA)*, volume 2424 of *Lecture Notes in Computer Science (LNCS)*, pages 186–197, Cosenza, Italy, September 2002.
- [7] Thomas Eiter, Wolfgang Faber, Nicola Leone, Gerald Pfeifer, and Axel Polleres. The  $DLV^K$  Planning System: Progress Report. In Sergio Flesca, Sergio Greco, Giovambattista Ianni, and Nicola Leone, editors, *Proceedings of the 8th European Conference on Artificial Intelligence (JELIA)*, volume 2424 of *Lecture Notes in Computer Science (LNCS)*, pages 541–544, Cosenza, Italy, September 2002. (System Description).
- [8] Nicola Leone, Gerald Pfeifer, Wolfgang Faber, Francesco Calimeri, Tina Dell’Armi, Thomas Eiter, Georg Gottlob, Giovambattista Ianni, Giuseppe Ielpa, Christoph Koch, Simona Perri, and Axel Polleres. The DLV System. In Sergio Flesca, Sergio Greco, Giovambattista Ianni, and Nicola Leone, editors, *Proceedings of the 8th European Conference on Logics in Artificial Intelligence (JELIA)*, volume 2424 of *Lecture Notes in Computer Science (LNCS)*, pages 537–540, Cosenza, Italy, September 2002. (System Description).
- [9] Axel Polleres. Answer Set Planning with  $DLV^K$ : Planning with Action Costs, September 2002. Poster presented at the PLANET’02 International Summer School on AI Planning 2002.
- [10] Axel Polleres. Answer Set Planning with  $DLV^K$ . *The PLANET Newsletter*, 5:36–37, 2002.

## 2001 and before

- [1] Thomas Eiter, Wolfgang Faber, Nicola Leone, Gerald Pfeifer, and Axel Polleres. System Description: The  $DLV^K$  Planning System. In Thomas Eiter, Wolfgang Faber, and

- Mirosław Truszczyński, editors, *Logic Programming and Nonmonotonic Reasoning — 6th International Conference, LPNMR'01, Vienna, Austria, September 2001, Proceedings*, number 2173 in Lecture Notes in AI (LNAI), pages 413–416. Springer Verlag, September 2001.
- [2] Thomas Eiter, Wolfgang Faber, Nicola Leone, Gerald Pfeifer, and Axel Polleres. The DLV<sup>K</sup> Planning System. In Alessandro Cimatti, Héctor Geffner, Enrico Giunchiglia, and Jussi Rintanen, editors, *IJCAI-01 Workshop on Planning under Uncertainty and Incomplete Information*, pages 76–81, August 2001.
  - [3] Axel Polleres. The DLV<sup>K</sup> System for Planning with Incomplete Knowledge. Thesis, Institut für Informationssysteme, Technische Universität Wien, Wien, Österreich, February 2001.
  - [4] Thomas Eiter, Wolfgang Faber, Nicola Leone, Gerald Pfeifer, and Axel Polleres. Planning under Incomplete Knowledge. In John Lloyd, Veronica Dahl, Ulrich Furbach, Manfred Kerber, Kung-Kiu Lau, Catuscia Palamidessi, Luís Moniz Pereira, Yehoshua Sagiv, and Peter J. Stuckey, editors, *Computational Logic - CL 2000, First International Conference, Proceedings*, number 1861 in Lecture Notes in AI (LNAI), pages 807–821, London, UK, July 2000. Springer Verlag.
  - [5] Thomas Eiter, Wolfgang Faber, Nicola Leone, Gerald Pfeifer, and Axel Polleres. Using the dl<sub>v</sub> System for Planning and Diagnostic Reasoning. In François Bry, Ulrich Geske, and Dietmar Seipel, editors, *Proceedings of the 14th Workshop on Logic Programming (WLP'99)*, pages 125–134. GMD – Forschungszentrum Informationstechnik GmbH, Berlin, January 2000. ISSN 1435-2702.
  - [6] Uwe Egly, Michael Fink, Axel Polleres, and Hans Tompits. A web-based tutoring tool for calculating default logic extensions. In *Proceedings of the World Conference on the WWW and Internet (WEBNET'99)*. AACE, 1999.