Semantic Web - Ontology Languages and Their Use
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Topic of the Summer School

The summer school is devoted to the Semantic Web, a very dynamic and current area of research and application which aims at making information on the World Wide Web fit for intelligent systems applications. One of the key ideas of the Semantic Web approach is to make use of methods from knowledge representation and of AI research in general in order to obtain seamless integration of information from diverse resources, interoperability of tools, enhance search functionalities, and the like.

Central for this development is the design of knowledge representation languages for building so-called ontologies, which serve as a kind of metadata to describe the semantics or meaning of data on the Web. Of primary importance are ontology languages and related recommended standards by the World Wide Web Consortium (W3C), as well as methods and algorithm for their processing.

The Semantic Web is now an advanced interdisciplinary field having its home in Computer Science. Third party funding for more than a decade, in particular from the European Union, has led to significant progress. Systems like Apple’s Siri or IBM’s Watson, adaptions of Semantic-Web-based technologies for e.g. schema.org, Facebook’s Open Graph or Google’s Knowledge Graph bring these technologies to widespread use and application. Through so-called Linked Data, high volumes of Semantic-Web-processable data is already available on the Web.

The ICCL Summer School 2013 will introduce to Semantic Web Ontology Languages and some of their application areas, and highlight related research problems.
Lectures and Lecturers

(You will find a timetable on the last page of this brochure)

Ontology-based Model Checking Applications

Ontology services can be called from standard software to check constraints or calculate the subsumption of certain concepts. If appropriate transformations from arbitrary specifications or models to ontologies are defined, they can provide a powerful backend tool for constraint checking of these specifications. The course discusses several prerequisites, such as model-driven software development in general, the notion of a technical space and the bridges between them. Then it presents several examples for using the ontology services as backends of specification tools, such as consistency checking for product line models (feature models), safety models, and domain-specific languages.

Uwe Aßmann

Technische Universität Dresden, Germany

Uwe Aßmann holds the Chair of Software Engineering at the TU Dresden. He has obtained a PhD in applying Datalog to compiler optimization and a habilitation in "invasive software composition" (ISC), a composition technology for code fragments enabling flexible software reuse. This technology unifies generic, connector-, view-, and aspect-based programming for arbitrary program or modeling languages. It has also been applied to logic languages, in particular OWL and Datalog, realizing advanced reuse concepts such as generic queries, hygienic macros, or role-based aspects. On this background, his group researches how to tightly integrate ontology languages with software models - either in tools for domain-specific languages, in which ontologies capture static semantic constraints, or in feature-based product line specifications, in which ontologies capture dependencies between products.
Reasoning in Expressive Description Logics

Description Logics (DLs) are a successful family of logic-based knowledge representation formalisms, which can be used to represent the conceptual knowledge of an application domain in a structured and formally well-understood way. They are employed in various application domains, such as natural language processing, configuration, and databases, but their most notable success so far is the adoption of the DL-based language OWL DL as standard ontology language for the semantic web.

This tutorial concentrates on designing and analyzing reasoning procedures for expressive DLs. After a short introduction and a brief overview of the research of the last 20 years, it will present approaches for reasoning in expressive DLs, which are the foundation for reasoning in OWL DL. In particular, it will introduce tableau-based and automata-based reasoning procedures and will analyze the computational complexity of reasoning in DLs.

Franz Baader
Technische Universität Dresden, Germany

Franz Baader is full professor for Theoretical Computer Science at TU Dresden. He has obtained his PhD in Computer Science at the University of Erlangen, Germany. He was senior researcher at the German Research Institute for Artificial Intelligence (DFKI) for four years, and associate professor at RWTH Aachen for eight years. His main research area is Logic in Computer Science, in particular knowledge representation (description logics, modal logics, ontologies) and automated deduction (term rewriting, unification theory, combination of decision procedures). He was program chair of the conferences KI’01, CADE’03, LPAR’04, and RTA’07, is in the editorial board of several journals in AI and Logic in Computer Science, and has over 160 refereed articles in major journals and conferences.

Datalog-based Query Answering Over Ontologic Knowledge Bases

In this course, we address query answering over ontologies based on the datalog language as host language. Datalog is a core fragment of logic programming with recursion, for which several effective reasoning engines have been provided, some of them
also supporting un-stratified negation. For various description logics, the query answering over ontologies (i.e., knowledge bases) has been reduced to datalog to exploit the available support. On the other hand, extensions of datalog to better accommodate the needs of query answering, in particular dealing with anonymous individuals, have been conceived. We shall consider reductions of query answering to standard datalog and extensions thereof for different types of queries, both from the point of theoretical foundations and practical realization. The learning outcome of this course should be awareness of datalog reduction approaches, benefits and limitations of those, knowledge about the obstacles encountered in implementation, and knowledge of some systems that have been under development.

Thomas Eiter
Technische Universität Wien, Austria

Thomas Eiter is a full professor (since 1998) in the Faculty of Informatics at Vienna University of Technology (TU Wien) and Head of the Institute of Information Systems (since 2004), where he also leads the Knowledge Based Systems Group. He graduated in Computer Science at TU Wien in 1989 and there earned the Doctoral degree in 1991 and got habilitation in 1995. From (1996-1998) he was an associate professor of Computer Science at the University of Giessen, Germany.

Thomas Eiter’s current research interests include knowledge representation and reasoning, database foundations, logic programming, complexity in AI, knowledge-based agents, and logic in computer science. He has published extensively in these areas, and many papers appeared in prominent venues including JACM, Artificial Intelligence, ACM TODS, ACM TOCL, JCSS, TPLP, IEEE TDKE etc. He has contributed to the DLV system and some of its extensions, e.g. the DLVHEX system.

Thomas Eiter’s work has been honored with the IJCAI 2001 and AAAI 2002 Distinguished Paper Awards, and with a Best Paper Award of the European Semantic Web Conference (ESWC) 2006. He is a Fellow of the European Coordinating Committee for Artificial Intelligence (ECCAI), and a Corresponding Member of the Austrian Academy of Sciences.

Thomas Eiter has been involved in a number of national and international research and training projects, including the EU Networks of Excellence Compluog, CologNet, and REWERSE, the Erasmus Mundus European Master’s program in Computational Logic (EMCL), the European PhD program in Computational Logic (EPCL), the the EU Working Group WASP, and the EU Projects INFOMIX and ONTORULE. He has been serving as general chair of the International Conference on Web Reasoning and Rule
Linked Data Applications at fluidOps

In this lecture, we present practical applications of Linked Data and semantic technologies in the enterprise. We will cover fundamental concepts of building Linked Data applications as well as concrete example solutions in domains such as data center management, energy and social media. We will illustrate these concepts based on the Information Workbench, a platform for Linked Data in the enterprise. Particular focus will be on practical uses of Ontology-based Data Access to enable scalable end-user access to Big Data.

Peter Haase
fluid Operations AG, Germany

Peter Haase is leading the research and development at fluid Operations, working at the interface of semantic technologies and cloud computing. Previously, Peter was at the Institute of Applied Informatics and Formal Description Methods (AIFB) at the University of Karlsruhe, where he obtained his PhD in 2006. Before joining the AIFB, he worked in the Silicon Valley Labs of IBM in the development of DB2 until 2003. His research interests include ontology management and evolution, decentralized information systems and Semantic Web. At the AIFB, he previously worked in the EU IST project SWAP (Semantic Web and Peer-to-Peer) and SEKT (Semantically Enabled Knowledge Technologies) and was working as a project leader for the EU IST project NeOn (Lifecycle Support for Networked Ontologies).
Ontologies and Rules

The relationship between the Web Ontology Language OWL and rule-based formalisms such as Datalog and RIF has been the subject of many discussions and research investigations, some of them controversial. From the many attempts to reconcile the two paradigms, we present some of the newest developments. More precisely, we show which kind of rules can be modeled in the current version of OWL, and we show how OWL can be extended to incorporate rules without compromising OWL design principles. The course also includes a discussion of the fundamental limitations concerning the integration of OWL and Rules, and a report on ongoing work regarding algorithmizations of reasoning for our integrated paradigm.

Pascal Hitzler
Wright State University, Dayton, Ohio, U. S. A.

Pascal Hitzler is Associate Professor at the Kno.e.sis Center for Knowledge-enabled Computing, which is an Ohio Center of Excellence at the Wright State University in Dayton, Ohio, U.S.A. From 2004 to 2009, he was Akademischer Rat at the Institute for Applied Informatics and Formal Description Methods (AIFB) at the University of Karlsruhe in Germany, and from 2001 to 2004 he was postdoctoral researcher at the Artificial Intelligence institute at TU Dresden in Germany. In 2001 he obtained a PhD in Mathematics from the National University of Ireland, University College Cork, and in 1998 a Diplom (Master equivalent) in Mathematics from the University of Tübingen in Germany. His research record lists over 200 publications in such diverse areas as semantic web, neural-symbolic integration, knowledge representation and reasoning, denotational semantics, and set-theoretic topology. He is Editor-in-chief of the IOS Press journal Semantic Web - Interoperability, Usability, Applicability and the IOS Press book series Studies on the Semantic Web. He is co-author of the W3C Recommendation OWL 2 Primer, of the first German introductory textbook to the Semantic Web published by Springer Verlag, and of the book Foundations of Semantic Web Technologies by CRC Press, 2009 which was named as one out of seven Outstanding Academic Titles 2010 in Information and Computer Science by the American Library Association's Choice Magazine, and is currently being translated into Chinese. He has a prominent record of giving tutorials and teaching at summer schools (including several ESSLLI classes), is on the editorial board of several journals and book series and the steering committee of conferences like RR and ICCS, and he frequently acts as con-
ference chair in various functions, including e. g. General Chair (RR2012), Program Chair (ODBASE2011, RR2010), Track Chair (ESWC2013, ESWC2011, ISWC2010), Workshop Chair (K-Cap2013), Sponsor Chair (ISWC2013, RR2009, ESWC2009). For more information, see http://www.pascal-hitzler.de.

Geosemantics, Linked Spatiotemporal Data, and Geo-Ontologies

The course will introduce students to the field of Geospatial Semantics. It will cover a brief history of the field, introduce major research challenges, familiarize the students with sources of Linked Spatiotemporal Data, and discuss some well known Geo-Ontologies. The course will be driven by concrete application areas and use cases. The added value of semantic technologies and ontologies will be discussed. Students will learn why semantic heterogeneity is an essential part of interdisciplinary science and discuss methods how to approach it. In addition to aspects of knowledge representation and reasoning, the course will also focus on user interfaces and user interaction paradigms. Finally, the course will point out open questions and close with a broader perspective on the role of semantic technologies for workflows in science. The content of the class will be presented in a series of short interactive lectures followed by discussions and group task for the students.

Krzysztof Janowicz

University of California, Santa Barbara, U. S. A.

Krzysztof Janowicz is an Assistant Professor for Geographic Information Science at the Geography Department of the University of California, Santa Barbara, USA. He is running the STKO Lab which investigates the role of space and time for knowledge organization. Krzysztof is a Faculty Research Affiliate of the Center for Information Technology and Society as well as the Cognitive Science Program. Before, Krzysztof was an Assistant Professor at the GeoVISTA Center, Department of Geography at the Pennsylvania State University, USA. He is also the community leader of the 52° North semantics community and one of the two Editors-in-Chief of the Semantic Web journal. Before moving to the US, Krzysztof was working as postdoctoral researcher at the Institute for Geoinformatics (ifgi), University of Münster in Germany for the Münster Semantic Interoperability Lab (MUSIL). Before starting a career in academia, Krzysztof was leading a software engineering and consulting company in Germany. In this function Krzysztof Janowicz also authored a book on Internet Security for O'Reilly press which was later released as one of the first Open Books in Germany and is currently available in the 3rd Edition. Krzysztof has authored and edited more than 90 publications and organized international workshops and conferences on a wide range of
topics. His key research interests include geospatial semantics, semantic interoperability, similarity and analogy reasoning, mobile computing & location-based services, and GIScience.

The Linked Data Lifecycle

With Linked Data, a very pragmatic approach towards achieving the vision of the Semantic Web gained much traction. While many standards, methods and technologies developed within the Semantic Web activity are applicable for Linked Data, there are also a number of specific characteristics of Linked Data, which have to be considered. We introduce the main concepts of Linked Data and present an overview of its lifecycle. We discuss individual approaches as well as the state-of-the-art with regard to extraction, storage and querying, authoring, linking, enrichment, quality analysis, as well as search and exploration of Linked Data. We conclude the article with a discussion of issues, limitations and further research and development challenges of Linked Data.

Jens Lehmann
University of Leipzig, Germany

Jens Lehmann is a postdoctoral researcher at the University of Leipzig and leading the Machine Learning and Ontology Engineering research group within the AKSW center. His research interests involve semantic web, machine learning and knowledge representation. He is founder, leader or major contributor to several open source projects, including DL-Learner, DBpedia, LinkedGeoData, ORE, and OntoWiki. He works/worked in several funded projects, e.g. LOD2 (EU IP), LATC (EU STREP) and SoftWiki (BmBF). Dr. Jens Lehmann authored more than 30 articles in international journals and conferences, which were cited more than 2000 times (H-index 15) according to Google Scholar. Dr. Jens Lehmann is/was track chair, PC member, and editorial board member in several top conferences and journals. He served as a lecturer for the Semantic Web course in Leipzig for several years, taught a lecture on ontology learning at the reasoning web summer school and a lecture on Linked Data at the Leipzig School of Media.
Towards a Semantic Web Unifying Logic

Building on the contents presented on ontologies and rules, the course focuses on how to overcome one of the major conceptual differences between the two W3C standards OWL and RIF, namely, the first-order Open World Assumption of the former vs. the non-monotonic Closed World Assumption of the latter. We propose and discuss a description logic extending SROIQ (the description logic underlying OWL 2 DL) and at the same time encompassing some of the most prominent monotonic and non-monotonic rule languages, in particular Datalog extended with the answer set semantics. To this end, we are also going to consider combinations of non-monotonic rules and Description Logics in more detail. We argue that our proposal could be considered a substantial contribution towards fulfilling the quest for a unifying logic for the Semantic Web.

Matthias Knorr
Universidade Nova de Lisboa, Portugal

Matthias Knorr is currently a PostDoc researcher at the New University of Lisbon (UNL) in Portugal and member of CENTRIA at UNL, the largest Artificial Intelligence Center in Portugal. He was a visiting PostDoc researcher at Kno.e.sis Center, Wright State University, Dayton, Ohio, USA during September 2011, after finishing his PhD thesis entitled “Combining Open and Closed World Reasoning for the Semantic Web”, jointly supervised by José Júlio Alferes and Pascal Hitzler, at the Department of Computer Science located at the Faculty of Science and Technology (FCT) of UNL. Before that, he studied Computer Science (B.Sc.) at Dresden University of Technology (TUD) and Computational Logic (M.Sc.), and became the first student to complete the European Master’s Program in Computational Logic with a Double Degree from TUD and UNL. His research focuses on Non-monotonic Reasoning in the Semantic Web with a particular focus on combinations of ontologies and non-monotonic rule languages. He frequently co-authors high-quality publications in important venues, such as AI Journal, ACM TOCL, ECAI, and ISWC.

Rule-Based Reasoning in Lightweight Ontology Languages

This lecture gives an extended introduction to lightweight ontology languages, in particular to the OWL EL and OWL RL profiles of the Web Ontology Language OWL. The OWL profiles are sublanguages of the OWL DL standard that are restricted in
ways that significantly simplify ontological reasoning. Compared to OWL DL as a whole, reasoning algorithms for the OWL profiles show higher performance, are easier to implement, and can scale to larger amounts of data. Since ontological reasoning is of great importance for designing and deploying OWL ontologies, the profiles are highly attractive for many applications. These advantages come at a price: various modelling features of OWL are not available in all or some of the OWL profiles. This chapter provides an overview of these differences and explains why some of them are essential to retain the desired properties. To this end, we recall the relationship between OWL and description logics (DLs), and show how each of the profiles is typically treated in reasoning algorithms, with a particular focus on rule-based reasoning procedures.

(See http://korrekt.org/page/OWL_2_Profiles for a script.)

Markus Krötzsch
University of Oxford, U. K.

Markus Krötzsch is a post-doctoral researcher at the Department of Computer Science of the University of Oxford. He obtained his Ph.D. from the Institute of Applied Informatics and Formal Description Methods (AIFB) of the Karlsruhe Institute of Technology (KIT) in 2010. He is a co-developer of the highly efficient ELK reasoner for OWL EL, project lead of the popular semantic content management system Semantic MediaWiki, and co-editor of the W3C OWL 2 specification. His research has contributed to the fields of light-weight and rule-based ontology languages, query answering, reasoning complexity, and content management and integration platforms for the Web of Data. He has published many works in leading journals and conferences, and two textbooks on semantic technologies, one of which has been recognised as Outstanding Academic Title in 2010 by the American Library Association. He has given invited talks, tutorials and lectures at numerous events, and co-organised various international conferences and workshops.

RDF and SPARQL
The Resource Description Framework RDF is a formal language for describing structured information. The goal of RDF is to enable applications to exchange data on the Web while still preserving their original meaning. RDF consequently is often viewed as the basic representation format for developing the Semantic Web. In the lecture, we will introduce the basic, graph-based data model underlying RDF and explain its
syntax. We show how complex data structures (n-ary relations, lists, etc.) can be captured by the very simple RDF data model. Next, we introduce RDF Schema, which enriches the fact-based modelling of RDF by ways to specify terminological knowledge. We then provide a model-theoretic, formal semantics for RDF and RDF Schema and show how to perform inferencing efficiently based on a deduction calculus. Thereafter we introduce SPARQL, a query language for RDF data, featuring graph patterns, filters, as well as modifiers for the output. We describe the syntax of SPARQL in detail and then provide its semantics which, just like the semantics of SQL, is defined in an algebraic way. Concluding, we discuss some engineering aspects and application scenarios related to RDF and SPARQL.

Sebastian Rudolph

Technische Universität Dresden,
Germany

Sebastian Rudolph is professor for Computational Logic at the AI Institute of TU Dresden since April 2013. Before, he was a senior lecturer (“Privatdozent”) and project leader at the Institute AIFB, Karlsruhe Institute of Technology (KIT), Germany. He obtained his PhD in mathematics from the Institute for Algebra at the Dresden University of Technology in 2006 and his habilitation in computer science from the Karlsruhe Institute of Technology in 2011. His publication record comprises more than 70 publications in various fields; his active research interests include semantic technologies, knowledge representation, logic, algebra, complexity theory, machine learning, database theory, and computational linguistics. Sebastian acts on the steering committees of multiple conferences (ICCS, ICIFCA, DL, RR) and on the editorial board of the Journal on Data Semantics. He stayed as a visiting researcher at the University of Oxford, the TU Vienna, the LIRMM in Montpellier and the IRISA in Rennes. He contributed to the OWL 2 standard as participant of the OWL working group of the W3C, and co-authored two textbooks on Semantic Web modeling languages. Besides his academic work, Sebastian is a semiprofessional classical singer.
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Javanshir Alammadli (Master)

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I’m male.

I am studying MSc in Computational Logic in TU Dresden. Semantic Web, Natural Language Processing

Motivation to attend the Summer School

I would like to enhance my knowledge in Semantic Web. As there are many conferences about Semantic Web, RDF/SPARQL, ontology languages and i will also be in Dresden, i don’t want to miss them.

Syed Ahmad Chan Bukhari (Master)

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I’m male.
I’m originally from Pakistan/Asia.
But now I am in Canada/USA + Canada.

I am currently PhD student at University of New Brunswick Canada. I am currently working on semantic web services and its application on bio sides. I did my master in computer science from Gyeongasang National University Korea. I have 10 international publications in my credit. My publication page (http://scholar.google.com/citations?user=JhWJ5PEAAAAJ&hl=en).
My current project pages. Bionlp SADI (http://code.google.com/p/bionlp-sadi/) Canadian health census to LOD (http://code.google.com/p/open-link-health-census/)
Motivation to attend the Summer School

My purpose to join the school is to discuss my current projects with experts of semantic web area and to learn the new techniques especially to learn the advance ontology engineering techniques. Please visit my linked in profile for my publications and current projects. Profile: http://www.linkedin.com/in/ahmadchan My publication page (http://scholar.google.com/citations?user=JhWJ5PEAAAAJ&hl=en). My current project pages. Bionlp SADI (http://code.google.com/p/bionlp-sadi/) Canadian health census to LOD (http://code.google.com/p/open-link-health-census/)

Aleksey Buzmakov (Master)

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I’m male.
I’m originally from Russia/East Europe.
But now I am in France/West Europe.

Scientific Interests: Formal Concept Analysis and Pattern Structures, Data analysis of ”Complex” data, such as sequences and graphs. 2011 – now: PhD Student, Université de Lorraine, France and Moscow Higher School of Economics, Russia 2009 – 2011: Software-Engineer, FineReader; Team, ABBYY-Software-House, Russia 2009 – 2011: MSc in applied Mathematics and Physics, Moscow Institute of Physics And Technology (State University), Russia.

Motivation to attend the Summer School

Semantic web is a great way of representing and reasoning on public available data. It is interesting for me in several ways: 1) discussing methods for working with semantic web helps to understand and share experience in ”complex” data processing; 2) I believe that FCA can help semantic web community, that is why it is important for me to understand better semantic web and its application 3) knowing the new domains is always good and interesting...
Tomy **Chirathalackal** (Ph.D)

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I'm male.

**Academic Record:**  
PhD in Philosophy, University of Hyderabad, 1996; MPhil in Philosophy, University of Hyderabad, 1990; MA in Philosophy, University of Hyderabad, 1989; BA in Philosophy, University of Kerala, 1985.

**Employment Record:**  
December 2012 - Till Date, Professor of Philosophy, Indian Institute of Technology Delhi (IIT Delhi)  
October 2008 - December 2012, Associate Professor of Philosophy, IIT Delhi.  
December 2005 - October 2008: Associate Professor of Philosophy, IIT Kanpur.  
December 1999 - December 2005: Assistant Professor of Philosophy, IIT Kanpur  
July 1997 - December 1999: Lecturer in Philosophy, IIT Kanpur  
June 1996 - July 1997: Lecturer in Philosophy, University of Goa

**Areas of Specialization:** Philosophy of Mind and Cognition, Philosophy of Language  
**Teaching Interests:** History of Philosophy, Philosophy of Mind, Philosophy of Science, Philosophy of Cognitive Science, Philosophy of Language, Ethics, Introductory Philosophy, and Introductory Logic.

**Motivation to attend the Summer School**

I have been interested in questions of knowledge representation and semantics. I hope that an introduction to Semantic Web Ontology Languages would provide me with new tools for conceptual analysis in the field of knowledge representation and semantics. Moreover, I have been teaching courses on Philosophy of Mind, Philosophy of Language, Cognitive Science, and Logic in an interdisciplinary environment. An entry point into semantic web-ontology would enable me to disseminate knowledge acquired in the workshop among both graduate and undergraduate students of Indian Institute of Technology Delhi by designing and floating new courses or by incorporating the content of the workshop in some of the current courses I teach.
Anton Dergunov (Ph.D)
Lobachevsky State University of Nizhny Novgorod
Faculty for International Students
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Russian Federation
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I’m male.

* PhD in computer science (knowledge representation for performance analysis of MPI applications) from Lobachevsky State University of Nizhny Novgorod * Principle research interests are: artificial intelligence, development and analysis of parallel and concurrent programs * Teaching courses in AI, expert systems and databases (since 2009). At the moment research adviser for 5 master students and 2 bachelor students (they have topics related to AI) * Solid software development experience (C/C++/Java/Haskell/CLIPS, etc.) * Fluent in English. Basic knowledge of Italian. Native language is Russian.

Motivation to attend the Summer School
I am highly motivated to attend the school, due to the following reasons: * Expand my knowledge in semantic web, knowledge representation and AI * Get inspired and get insight about interesting areas for further research in this field * Discuss knowledge representation models * Apply the gained knowledge in AI course and for research advise for students * Establish connections with researchers in this field

Angela Di Iorio (Master)
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I’m female.
I’m originally from Italia/West Europe.
But now I am in Italy/West Europe.

works for Sapienza Universita di Roma at the Libraries System Center and she deals with digital libraries management and preservation. She is working as metadata spe-
cialist for designing the metadata infrastructure and the workflow for collections management and she is the technologist project manager in the novel project Sapienza Digital Library, a research project which will gather and integrates all intellectual production of the university, scientific and humanistic. She collaborates with other Cultural Heritage’s institutions and is involved in research and documentation as expert of metadata standards for libraries and preservation in digital environments. Has dealt with other digital library projects as metadata specialist. Has taught in many training courses for professional specialization in ICT and ICT in libraries management. With Fondazione Rinascimento Digitale support is a PREMIS Preservation Metadata Maintenance Activity Editorial Committee’s member.

Motivation to attend the Summer School

Improving knowledge and competences about Semantic web technologies and envisaging feasible applications in cultural heritage field.

Nikolay Fastovets (Master)

Lomonosov Moscow State University
Faculty of Computational Mathematics and Cybernetics
Algorithmic Languages Department
Leninskie Gory, GSP-1
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Russia

nnf-cmc@cs.msu.su

I’m male.

Education: Lomonosov Moscow State University, Faculty of Computational Mathematics and Cybernetics, 2005-2011. 2009 - Graduated as a bachelor in Information Technologies. The diploma project’s subject was ”Using of parallel computations in functional program synthesis”. 2011 - Graduated as a master in Information Technologies. The master’s thesis subject: ”Development of a case-based reasoning system for automated program synthesis with use of ontologies”. Co-author in 4 publications, 3 of them in English (at April, 2013). Field of interests includes artificial intelligence, automatic program synthesis, knowledge representation.

Motivation to attend the Summer School

I am interesting in modern knowledge engineering techniques, which can be used in computer reasoning and program synthesis. Also, I am glad to meet and socialize with the international scientific community.
Silvia **Giannini** (Master)

Politecnico di Bari  
Department of Electrical and Information Engineering  
Via Gurakuqi 3  
Bari  
Italy  

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http://sisinflab.poliba.it/giannini

I’m female.

I received the Master Degree in Computer Science Engineering at Politecnico di Bari (Bari, Italy) on July 2011. From January 2012, I’m a Ph.D. Student in Electrical Engineering and Information Technologies at Dipartimento di Ingegneria Elettrica e dell’Informazione (Politecnico di Bari), under the supervision of Prof. Eugenio Di Sci-ascio. My research activity is focused on the development of a general semantic-based framework for the integration of distributed resources. Currently, I’m working on clustering techniques for RDF data.

**Motivation to attend the Summer School**

I’m interested in semantic web technologies. This summer school courses will extend my knowledge about description logics for the semantic web, semantic integration of heterogeneous sources, and efficient inference techniques with linked data. It will be extremely useful for my research work, focused on the development of a general semantic-based framework for the integration of distributed resources.

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Nataliia **Gontar** (Ph.D)

Zaporozhye National Technical University  
Computer Systems and Networks  
Uchenicheskaya, 68/2  
Zaporozhye  
Ukraine  

natalya.gontar@gmail.com

I’m female.

My sphere of interests is tightly bounded with Web Services and Service-Oriented Architecture investigation: semantic representation aspects in particular. Before getting my master degree I was interested in Systems Engineering (MBSE and UML). After having read Noy’s Ontology Development: guide to creating ontology, I became inter-
ested semantic technologies (by using OWL, RDF standards and Protege). I developed my first ontology systems engineering of space systems. After applying semantics in a specialized subject area of space systems, I realized that the use of semantics is a progressive direction of development of information technology. I’ve been trying to create approach to formalizing of a new semantic service-oriented architecture (SSOA) with the following distinct stages: a formal specification, semantic services. I have chosen OWL language formalize ontology services. To complete the formalization, I’ve been trying to implement the model of interaction SSOA.

**Motivation to attend the Summer School**

I need a new experience and knowledge to finish my dissertation work. I want to develop and implement new discipline of semantic technologies on my Department of Computer Systems and Networks in the future.

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Hebatalla Md. Wagih Abdelgawad **Md. Hammad** (Master)

British University in Egypt  
Information Systems  
Cairo  
Egypt

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I am female.

I am an Assistant Lecturer in the British University in Egypt. I got my master degree in May 2012, my research topic was A Description Logic Based Framework for Synchronizing Object Role Modeling Schemas and Web Ontology Language. I have several publications as: 1- Heba M. Wagih, Doaa S. Elzanfaly, Mohamed M. Kouta. Mapping Object Role Modeling 2 Schemes into SROIQ(D) Description Logic, International Journal of Computer Theory and Engineering, Vol. 5, No. 2, April 2013  

**Motivation to attend the Summer School**

I am a PH.D. student and I would like to pursue my PHD studies in the area of web sciences. The work I accomplished in my master degree focused on semantic web and
description logics. The research proposed in the master degree was synchronizing object role models (ORM) and OWL2 ontologies based on description logics. I would like to continue the PH.D. in the same track. The lectures offered in ICCL Summer School 2013 Semantic Web - Ontology Languages and Their Use represent most of the topics I am interested in especially for Reasoning in Expressive Description Logics and Ontologies and rules. I attended some courses in this area to enhance my understanding and knowledge about new semantic web technologies. Such courses are: 1. Winter School (04/February/ 2013 - 08/ February / 2013) in "Bridging between Information Retrieval and Databases, Participative Research Laboratory for Multimedia and Multilingual Information Systems Evaluation, Bressanone, Italy 2. Summer School in web sciences (27/June/ 2011 - 22 / July/ 2011), Koblenz - Landau University, Germany I believe that meeting experts from all over the world will help me to enrich my understanding and will deeply influence my PH.D. studies.

Islam **Ahmed Hassan Ismail** (Bachelor)
National University of Ireland, Galway
Digital Enterprise Research Institute (DERI)
DERI, IDA Business Park
Galway
Ireland

islam.hassan@deri.org

I'm male.
I'm originally from Egypt/Africa.
But now I am in Ireland/West Europe.

I'm a master student in the eGovernment unit at DERI, NUIG, Ireland. I have obtained my bachelor degree in Management Information Systems at Alexandria University, Egypt. After my bachelor degree, I worked as software developer in a company in Alexandria during 2010 and my main role was to apply the semantic web technology in the development of some medical applications. During the 2011 I finished one semester at the Mobile Computing department in the FH Hagenberg, Oberosterreich, Austria and worked as mobile developer (Android) at Augmensys, Linz, Austria. My scientific interests are Ontologies, Entity recognition, Linked Data, Big Data, Data Catalog, RDF, SPARQL, Data Publishing Pipeline and smart cities.

**Motivation to attend the Summer School**

Ontologies play an important role for the success of the Semantic Web and my main objective is to get solid knowledge about the ontologies and it’s related technologies because that will take my research to new levels where i will be able to think differently and do the work with a huge and significant enhancement. Meeting and working with new people in the same field also will enrich me a lot scientifically, socially and
Nadin Kökciyan (Master)

Bogazici University
Department of Computer Engineering
Bogazici University, Dept. of Computer Engineering,
SOSLAB ETA36
Istanbul
Turkey
nadin.kokciyan@boun.edu.tr

I’m female.

I’m a second year Phd. student in Computer Engineering. I’m doing my research in Complex Networks Laboratory in Computer Engineering Department, Bogazici University. My research areas include ”ontology engineering”, ”semantic query processing”, ”social semantic web”, and ”sentiment analysis in social networks”. My Bachelor thesis subject was ”Classification of Web Services via Methods of Semantic Clustering”, where the goal was to discover similar semantic web services. My MS thesis was ”WeFlow: We Follow the Flow”, where the goal was to provide a framework enabling generation of web applications specified by for non-savvy IT users. I was the team leader of BOUNCE team that partipated in SemEval 2013 Task 2. BOUNCE ranked 3rd (among 23 teams) on Task A and 4th (among 35 teams) on Task B of the Sentiment Analysis in Twitter competition in SemEval 2013.

Motivation to attend the Summer School

I’m currently involved in a project that is funded by TUBITAK (The Scientific and Technological Research Council of Turkey). In this project, I’m working on an ontology (ONLIRA - Ontology of the Liver for Radiology) developed for semantic expression of liver CT images. ONLIRA offers a domain knowledge for the liver. Therefore, semantic analysis beyond pure image based analysis of liver CT images can be achieved. A data collection tool is using ONLIRA to collect data from radiologists. ONLIRA can be accessed online via http://www.vavlab.ee.boun.edu.tr/pages.php?p=research/CARERA/carera2.html An important part of the project requires: (1) matching ONLIRA to other existing ontologies such RadLex, FMA, SNOMED CT etc., (2) searching semantically among liver cases to help doctors in finding similar cases, (3) enabling intelligent query processing by expanding/restricting the given query, and (4) ranking the liver cases according to their relevancy to a query case. I took many courses like Web Semantics, Social Semantic Web, Artificial Intelligence and so. I believe that the summer school will help me a lot to improve my knowledge about Semantic Web and apply what I learn from it to my Phd work.
Alisa Kovtunova (Master)

Free University of Bolzano  
Faculty of Computer Science  
via Carducci, 7, C.P. 461  
Bolzano  
Italy  

Alisa.Kovtunova@stud-inf.unibz.it

I’m female.  
I’m originally from Russia/West Europe.  
But now I am in Italy/West Europe.

I’m PhD student in Free University of Bolzano, I completed the programme of higher education in Applied Mathematics and Computer Science in Lomonosov Moscow State University in 2012. My scientific interests are in Description Logics, Temporal Logics, Knowledge Representation and Databases.

**Motivation to attend the Summer School**

Programme of the Summer school is very useful for my scientific interests and it will provide opportunities for discussion of current research.

Sandeep Kumar (Ph.D)

Indian Institute of Technology (IIT)  
Dept. of Computer Science and Engineering  
Dr. Sandeep Kumar, Dept. of Electronics and Computer Engineering, Indian Institute of Technology Roorkee,  
Roorkee-247667, Uttarakhand, Indai  
Roorkee (Uttarakhand)  
India  

sandeepkumargarg@gmail.com  
http://www.iitr.ac.in/departments/CSE/pages/People+Faculty+sgargfe

I’m male.

Dr. Sandeep Kumar is currently working as a Faculty in the Electronics & Computer Department of Indian Institute of Technology Roorkee (India). He has done Ph.D. from Indian Institute of Technology (IIT), BHU (India). He has published around fifty research papers, articles and book chapters in various reputed international journals
and conferences. He has also published three books. One of his book on Agent based Semantic web service composition is published by Springer USA. His research has also appeared in various research books in USA. He is the reviewer, editorial board member and advisory committee member of various international journals and conferences. For his service to research community, he has been awarded multiple times by various societies such as WSEAS Hungary, Springer USA etc. He is the member of board of examiners and board of studies of various universities and institutions. He is also the panel member for staff selection and other academic and research societies in State and Central bodies such as UKPSC, ICFRE etc. He has active collaborations in industry and academia within India as well as in abroad. His biography has been listed and he has been selected for various awards such as The Scientific Award of Excellence 2011 and 2012, The Great Minds of 21th Century, The Man of the Year 2012 , IBC TOP 100 Engineers 2012 and others by different organizations such Marquis Who’s Who USA, International Biographical Centre Britain, American Biographical Institute USA. He has worked as session-chair and keynote/oral speaker in various conferences and workshops in India and abroad such as in IIT-BHU Varanasi, Thailand, Paris etc. He has worked as the panelist in Indus-Global Summit 2012 and The Technology World Malaysia. He has also led the teams in IBM-TGMC. He is actively involved as the principal investigator in research project and is guiding various research students at PG and PhD level. His areas of interest include Semantic Web, Web Services, Multi-Agent systems and Software Engineering.

Motivation to attend the Summer School

Dear Sir/Madam, I am actively involved in the research in the area of Semantic Web, multi-agent systems and their applications. I have done some significant research work in this area (as is also mentioned in the CV at my home page). The application of Semantic Web technology requires good knowledge of ontological development. After studying the scope of this course, I found this course exactly as per my requirements. This course will enhance my knowledge in this area. Next, through this course, I will be able to have interaction with reputed researcher of similar research areas. Being a faculty and officer-incharge of the Post graduate program at my department, I will also try to find the opportunity for collaborations in the form of research projects and student exchange.

Guan-Shuo Mai (Master)

Academia Sinica
Biodiversity Research Center
Taipei
Taiwan
trashmai@gmail.com

I’m male.
Motivation to attend the Summer School

I’m a cross-domain guy and I’d like to learn more about how to use ontology and apply to ecology and biodiversity domain.

Ujjal Marjit (Master)
University of Kalyani
Centre for Information Resource Management
Department of Computer Science and Engineering
Centre for Information Resource Management (CIRM),
University of Kalyani, West Bengal
Kalyani, Nadia
India

sic@klyuniv.ac.in

I’m male.

Academic Qualifications: PhD (Pursuing) from Department of Computer Science & Engineering, University of Kalyani, India (June 2009). Master of Computer Application (MCA) from Jadavpur University, India. B.Sc in Mathematics from Visva-Bharati, India, Obtained with honours. Professional Experience: June 2009-now Research Scholar, Department of Computer Science and Engineering, University of Kalyani, India. Sept 2006-now System-in-Charge, Centre for Information Resource Management, University of Kalyani, India January 2001-August 2006 System Analyst, Vidyasagar University, India. Scientific Interests: Ontology Alignment using Biologically-inspired Multi-objective Particle Swarm Optimization method, Ontology Engineering, Reasoning, Linked Data Modeling with Provenance. Publications: I have written or co-authored approximately 27 publications in total since 2009, including international journals, conferences, Book Chapter, etc

Motivation to attend the Summer School

I am Ujjal Marjit, System-in-Charge (Research Scholar), holding permanent position at Centre for Information Resource Management (CIRM) of the University of Kalyani, India. I would like to apply for a two weeks esteemed ICCL summer School Semantic
Web- Ontology Languages and Their Use to be held during 18-31 August, 2013 in Technische Universität Dresden, Germany. Currently, I am pursuing PhD (Computer Science & Engineering) from university of Kalyani. My areas of research include Semantic Web, Ontology Alignment using Biologically-inspired Optimization methods, Ontology Engineering and Linked Data modeling, Provenance. I am keenly interested in acquiring more theoretical and practical knowledge in ontologies from the eminent and reputed expert professors of various countries. The main reasons for willingness to participate are to share and discuss my ideas regarding my ongoing research topic with the eminent experts who are working in this field for quite a long period. However, from my work and experience in the sector of Semantic Web and Ontologies, I came to recognize that my knowledge is still limited in many areas. Since my country India, has not gone as such an initial step in these sectors, it has been my dream to contribute for the development of this technology in our country. Attending this event will be a great chance for me to expand my horizons, learn new techniques and gain knowledge of semantic technologies, which is nowadays one of the fastest growing research fields. I am also looking forward to the networking opportunities generated by the diversity of people attending this summer school. I would be happy to work together with students and researchers from all over the world. I am ambitious, optimistic, and motivated in a very realistic way and focused to reach and accomplish all my goals. I am able to present my ideas in a fluent and confident manner. Friends and acquaintances all testify to the fact that I relate to people easily and that I am able to adapt quickly to new surroundings and situations. I have learnt to work towards, and achieve my aims with great commitment and perseverance. I hope this letter will be given your full consideration and I will be happy to provide any further information you may require. I would be most grateful if you could give my application your most favorable consideration. Looking forward to your positive response.

Ahmed Mashiyat (Master)

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Computer Science
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I’m male.

I am a first year PhD student in computer science at University of Toronto. I have finished my MSc. and BSc. in the same field. I have worked both in a startup and in large corporations, mostly as a Software Engineer for almost 4 years. (notably www.communiclique.com, www.Jaxata.com, www.tcs.com). I have worked in time-constrained and compensable workflow verification methods (published in FMICS 2010,
2011, and FHIES 2012), and conceptual model refinement (Model driven development approach). Recently, I have become interested in Knowledge representation, big data curation, data mining (published in MSR 2013), and semantic technology. More specifically, I am interested in applying these technology to develop new tools and technique to support collaborative development and maintenance of software engineering activity.

Motivation to attend the Summer School

Software development provenance information, when tracked at each point during the software lifecycle, allows us to answer questions like who made these changes?, why and when these changes has been done?, how the code evolved to this point?. Answering more complex questions, such as the cost to develop a feature X or which modules are proving unusually problematic, requires a substantial amount of data, so the analysis may start approaching the Big Data problem. Most source code management software does not support reasoning or analysis technique to answer these questions (Chipilat and Deep intelligence are some notable exceptions). Currently, I am working on defining provenance semantics for different development artifacts repositories, and developing new analysis and mining algorithms to efficiently compute this provenance. The aim is to provide a consolidated query answering framework by establishing links among various development artifacts repositories. Attending this summer school will give me an opportunity to learn from some of the best researcher in the world in their field. Most of the lectures are directly related to the problem I am trying to address. At this stage of my PhD, this summer school with help me to build a solid foundation for my research.

Elliot Matthew (Master)

University of Bath
Centre for Digital Entertainment
7 Princes Street
Bath
United Kingdom

ejm44@bath.ac.uk

I’m male.

2001-2003 BSc Computer Science First Class Honours - Heriot Watt University 2003-2006 Expedia Inc - Software Engineer Best Fare Search 2007 Accenture - Systems Analyst 2007-2009 Red Gate Ltd - Software Engineer 2009-2010 MSc European Urban Conservation with Distinction - Dundee University 2012- Studying for an EngD at Centre for Digital Entertainment with the National Trust

Motivation to attend the Summer School

As part of my EngD studies for the National Trust / Centre for Digital Entertainment
I am investigating next generation visitor information guides. In particular, how to use semantic webs and blended spaces (Virtual, Physical and Informational) to disseminate time-space and individual interest specific information to visitors to enrich their on-site experiences. An early scoping paper about these ideas has already been accepted as part of a Workshop on Blended Spaces at the 2013 SIGCHI Conference in Paris.

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Raja Natarajan (Ph.D)

Tata Institute of Fundamental Research  
School of Technology and Computer Science  
STCS, Tata Institute of Fundamental Research,  
Homi Bhabha Road, Colaba  
Mumbai  
India

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I’m male.

I am presently a researcher in the School of Technology and Computer Science, Tata Institute of Fundamental Research, Mumbai, India. My research interests include the areas of logic, knowledge representation, models of interacting agents, and programming paradigms. I have published papers in Journals such as Mathematical Structures in Computer Science, ACM Trans. on Prog. Languages, Informatica, Notre Dame Journal of Formal Logic, Information Processing Letters, International Journal of Foundations of Computer Science and IEEE Computer. Some of my publications are accessible from my homepage.

Motivation to attend the Summer School

I am interested in learning more about web ontology languages and knowledge representation approaches for modeling the semantic web. In particular I want to learn about the various problems that have to be overcome while using different formalisms for the development of web based tools for efficient search and information extraction. Of special interest to me are description logics and frameworks for description of resources.
Ana Helena Ozaki Rivera Castillo (Master)

University of Liverpool
Computer Science
Myrtle Street 35
Liverpool
England

anaozaki@gmail.com

I’m female.
I’m originally from Brazil/Latin America.
But now I am in England/West Europe.

I worked during my masters with a middleware for smart spaces (http://www.unbiquitous.org/). My work was to propose and implement a model for sharing context information using ontologies. This year I started a Phd at the University of Liverpool with the supervision of Prof. Frank Wolter. The project plan is in the area of ontology learning, using constructors of description logics to model concept relations. Formal Education: -PhD in Computer Science (2013-In progress) -Intitition: University of Liverpool -Supervisor: Prof. Frank Wolter -Master in Informatics (2010-2012) -Institution: University of Brasilia (Brazil) - Title: An ontology-based model for context information management in smart spaces -Supervisor: Prof. Ricardo P. Jacobi -Bachelor in Computer Science (2005-2009) -Institution: University of Brasilia (Brazil) -Supervisor: Prof. Dibio Borges

Motivation to attend the Summer School
I am currently researching ontology learning. My research topics include but are not limited to: Ontology languages, Reasoning and Data Mining. All the presentations in the course program of this summer school seem to be very interesting to me.

Jedrzej Potoniec (Master)

Poznan University of Technology
Institute of Computing Science
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Poznan
Poland

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http://www.cs.put.poznan.pl/jpotoniec

I’m male.
I have made both my bachelor and master theses at Poznan University of Technology, under supervision of Dr. Agnieszka Lawrynowicz. The first one was a system called ASPARAGUS, which was a prototype system for clustering results of SPARQL queries to ontological knowledge bases, and the later one was RMonto, plugin extending the RapidMiner data-mining software with support for RDF and OWL data. In the meantime, I took part in research in topics of semantic data mining. Currently I am first year PhD student at PUT. My PhD thesis is going to cover area of knowledge retrieval in the ontological knowledge bases. I aim to answer the question how to efficiently discover which part of the available knowledge is really important for solving given problem, and which one can safely be ignored, because the value it brings does not justify computational cost required for taking account of it.

Motivation to attend the Summer School

Until now, I managed to work having partial and not always accurate knowledge of theory behind the tools I used, but I am more and more aware of the fact that it becomes unfeasible for my current position. To efficiently work on my PhD thesis and later on as a researcher I need to expand my knowledge of the Semantic Web not only on the topics which are currently in the centre of my interest, but also on other topics, which can be required or useful in my future work. On the other hand, I would like to meet young people who work on the same topic as I do, be able to confront and discuss my ideas with them. I believe that meeting other PhD students in this field may effect in very interesting cooperation in the future.

Geovanny Poveda (Master)

Universidad Politécnica de Madrid
Telematic Systems
Calle rio Jucar 4, 2D, Valdemoro, Madrid, Spain
Madrid
Spain

poveda.geovanny@gmail.com

I’m male.

I’m Geovanny Poveda, a PhD student at technical University of Madrid (UPM) (Spain). Currently, I’m coursing second year of my PhD studies. I’m focused on semantic web technologies, specially in Multi agent system technologies and linked data. I have had the chance to participate in different Spanish research projects related to semantic web.

Motivation to attend the Summer School

I would like to improve my knowledge about the semantic web technologies, especially about the Ontologies, because just now I’m planning to integrate so many semantic
models on my current research (emergency simulation - based on Multi agent system). I’m planning to use Ontologies in order to create different kind of models on social simulation: 1. User model (behaviors) 2. environment model (physical model) 3. adaptation model. Also I would like to use the reasoning mechanism on my simulation. Thanks

Jessica Rosati (Master)
University of Camerino
School of Science and Technology
via vivaldi 13 d
Camerino
Italy
jessica.rosati@unicam.it
I’m female.

I got my master degree in Mathematics and Applications at the University of Camerino, Italy. The main topics which I focused my attention on are Operations Research, Probability, Statistics, Computer Science and obviously Analysis and Geometry. I wrote my master thesis, Support Vector Machines (SVM) for Time Series Prediction, at the Universitat Der Bundeswehr in Munich, where I spent five months with the Erasmus exchange. For my thesis I worked with Prof. Stefan Pickl (Universitat Der Bundeswehr, Munich) and Prof. Renato De Leone (University of Camerino, Italy), professors of Operations Research, and I dealt with SVM, a class of learning machines recently introduced to solve pattern recognition and function estimation problems. In particular I used such machines to forecast daily electrical loads with different time horizons. I have been attending a doctoral course on Business Process Optimization, since February for the School of Advanced Studies, University of Camerino.

Motivation to attend the Summer School
The Summer School could be a good opportunity to deep my knowledge in Ontology fundamentals for semantic processing and Semantic Web Technologies for Business Intelligence, which in turn are fundamental for the doctoral course I’m attending.
Ralph Schäfermeier (Master)

Freie Universität Berlin
Mathematik und Informatik
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Berlin
Germany
schaef@inf.fu-berlin.de
http://www.corporate-semantic-web.de/ralph-schafermeier.html

I’m male.

Currently PhD student with Prof. Dr. Adrian Paschke’s Corporate Semantic Web group at Freie Universität Berlin. My PhD research is about applying the aspect oriented paradigm to modular ontology development. My master thesis was about using domain ontologies for finding experts in corporate wikis.

Motivation to attend the Summer School

Having studied semantic web languages mostly from an ontology engineering perspective, I am looking to gain deeper knowledge about and more practical experience with their formal background. I am hoping to gain better insight into the formal semantics of the different ontology and rule languages and to meet interesting people from my own and related communities.

Simone Serra (Master)

University of Economics
Knowledge Engineering Group
Faculty of Informatics and Statistics
Italska 9
Prague
Czech Republic
serrazimone@gmail.com

I’m male.
I’m originally from Italy/West Europe.
But now I am in Czech Republic/West Europe.

I have a bachelor degree in Computer Science and Electronics from the University of Strathclyde, Glasgow, UK, and a master degree (to be completed in June 2013) in Cognitive Informatics from the University of Economics in Prague, Czech Republic. I have worked extensively in the IT sector as a programmer since 2001 and I have
participated in a summer traineeship at CERN, Switzerland and at Imperial College, London. My main scientific interests are in cognitive science and related fields (models of neurological computation, complex systems and adaptation, philosophy of science) and knowledge engineering, in particular the application of ontological modelling to RDF vocabularies used in Linked Data (which is the main topic of my master thesis).

Motivation to attend the Summer School

I am presently working in the field of knowledge engineering and the Semantic Web for my master thesis and I see this summer school as an opportunity to extend my knowledge in this field, also in view of a possible enrollment in a PhD program.

Muhammad Tayyab (Master)

University of Lahore
Department of Computer Science
29-D, Valencia
Lahore
Pakistan

muhammad.tayyab@cs.uol.edu.pk

I’m male.

I am teaching courses relating to theoretical aspects of computer science such as Discrete Mathematics, Introduction to Artificial Intelligence, and Theory of computation at undergraduate level since Feb. 2008. I am also a member of MS-level Thesis advisory committee that overlooks all MS theseses proposals and their defenses. Furthermore, I am also supervising a project for Bachelors degree.

Motivation to attend the Summer School

Through the summer school, I look forward to enhance my understanding about semantic web and ontologies and discover the opportunities for pursuing an advance degree (PhD) in the area as through interaction with the delegates attending the school. Besides I love interaction with people of similar interests from different social and professional background. Last but not the least, I am Informatics, TUD alumni and i would be really nice to visit my parent institution and friends there.
Aparna Thuluva (Bachelor)

Technische Universität Dresden
Faculty of Computer Science
Hertelstr.28
Dresden
Germany

aparna.thuluva@gmail.com

I'm female.
I'm originally from India/Asia.
But now I am in Germany/West Europe.

Master Student, Computational Logic, Faculty of Informatik, TUD 3 years of Work experience as a Software Engineer in Infosys Ltd, India. (www.infosys.com) B.E in Computer Science Engineering with percentage of 76 Sri Krishnadevaraya University, Andhra Pradesh India. I'm interested in learning more about Description Logics, Semantic search.

Motivation to attend the Summer School

I would like to attend this summer school, as the program offers various diversified topics in which i am interested like Ontologies, Semantic web technologies. So it will help me to understand more about the current research activities of the field which will help me pursue my career in research.

Henadzi Vaitsekhovich (Master)

Brest State Technical University
Intellectual Information Technologies Department
Gavriloa str. 9-16
Brest
Republic of Belarus

napster@tut.by

I'm male.

PhD student of Brest State Technical University, Computer Machinery, Systems and Computer Networks. At the same time I am an assistant of Intelligent Information Technologies department of Brest State Technical University. My research interests are artificial intelligence technologies and neural networks in computer vision, pattern recognition, computer security, modelling and medicine. Therefore my diploma thesis
is devoted to development approaches and software for stroke disease diagnosis. Also I have publications in the fields of systems simulation, face recognition task and attack detection. I’m interesting in computer security, programming languages, effective code, modelling, web-technologies and mathematics.

Motivation to attend the Summer School

I desire to expand my outlook in science, to increase and improve my knowledges, to find persons holding the same views, establish permanent communications with them and cooperate our efforts. The topic of the ‘ICCL Summer School 2013’ is close to my research work and fields of interests, so I think that the summer school will give me this possibility and therefore I ask you to consider my candidature to the summer school.

Olivera Vidojevic (Master)

University of Belgrade
Department of Logic
Faculty of Mathematics
Zivka Davidovica 36a/11
Belgrade
Serbia

oliveravidojevic@gmail.com

I’m female.

Education: MSc in Theoretical Mathematics, Faculty of Mathematics, University of Kragujevac. I am currently PhD student at Department of Logic, Faculty of Mathematics, University of Belgrade. Workshops and courses: May 28 - June 1, 2012: 14th European Agent Systems Summer School (EASSS 2012), Universitat Politècnica de València, Valencia, Spain. Scientific interests: Probability Logic, Description Logic, Fuzzy Logic, Multi-Agent Systems.

Motivation to attend the Summer School

I would like to take a part in this summer school because I am very interested into the field of Semantic Web. I would like to implement my gained knowledge about logic in that field. I hope this summer school will give me important experience and give me great opportunity of communicating with experts.
Jörg Wettlaufer (Ph.D)

Academy of Science and Humanities
Göttingen Centre for Digital Humanities
Papendiek 16
Göttingen
Germany

jwettla@gwdg.de
digihum.de

I'm male.

Jörg Wettlaufer studied History, History of Art and Physical Anthropology at Bochum, Kiel and Paris, France. He received his Ph.D. in 1998 for an interdisciplinary study on a problem in the history of late medieval law. From 1996 to 2011 he was involved in a research project on late medieval courts and residences of the Academy of Science at Göttingen that was hosted at the Christian-Albrechts-University at Kiel. In this project he was, among other things, responsible for the research database and the online publication of the results. He is in charge of several online projects that are concerned with, e.g., late medieval travel accounts and the history of emotions in medieval law and he has (co) founded several social online networks for scientists in the last millennium and after. At the GCDH in Göttingen he works for the Academy of Science in the project ”Digital Library and Virtual Museum” on generic solutions for common problems in online projects of the Göttingen Academy. He is currently especially interested in the application of semantic web technologies in the Digital Humanities and adaptive research/publication environments for researchers.

Motivation to attend the Summer School

After successfully completing the online Semantic Web Technologies Course at the HPI/Potsdam I like to expand and consolidate my knowledge about SWT and learn more about practical application in the context of Digital Humanities and the future scope of such technologies.
Raden Sandra **Yuwana** (Master)  
Bandung Institute of Technology  
Department of Informatics  
Kompleks Sarijadi Blok 5 No.116  
Bandung  
Indonesia  
raden.sandra.yuwana@lipi.go.id  
None  
I’m female.

I am a master student at Bandung Institute of Technology, my thesis about the ontology comparison tools with a case study in botanical garden. I am also worked as a researcher in Research Center for Informatics LIPI. Since 2012, in particular I have been involved in the data management of global and local biodiversities under the ARSIP LIPI. In the future, I want to do research on ontology and linked data, which can be applied to Indonesian biodiversity. I am involved in CRC 990 project http://www.uni-goettingen.de/en/310995.html to maintain, negotiate and realize the mirroring services from data owners. In July-August 2012, I did a research visit at ISIR Osaka University with grant from The Ministry Research and Technology Indonesia. I am learn about Hozo for Ontological Engineering, under the direction of Professor Riichiro Mizoguchi and Dr. Kouji Kozaki.

**Motivation to attend the Summer School**  
My motivation to attending this program are: - Looking for the possibility to continue the Doctoral program, with an area of research in Ontology and Linked Data. - By attending this program I could improve knowledge and get new inputs for my research directly from the experts. - I would like to establish good relationships with another participants from all over the world. I do believe this would be the first step to create global collaborations.
Igor Zakhlebin (none)

National Research University - Higher School of Economics  
Faculty of Business Informatics  
Makovskogo st., 2  
Moscow  
Russia

zahl.igor@gmail.com

I’m currently an undergraduate student at faculty of business informatics, HSE of Moscow. For two years I have been studying semantic technologies under guidance of Prof. Fomichov (http://www.hse.ru/en/org/persons/67739). My research interests belong to modeling expertise of professionals and its mining from natural language texts. As my thesis work I’m developing a system which automates retrieval of the information about professionals and allows user to search for particular professionals who have the required expertise. The search method relies on theory of k-representations (http://www.hse.ru/data/2012/11/23/1301725929/FomichovEngemannSymp2012fin1.pdf) developed by Prof. Fomichov.

Motivation to attend the Summer School

I believe that attendance in this summer school will allow me to learn the latest methods of developing ontologies in order to create an effective knowledge base for the common expertise types. In this sense the most interesting courses for me are the Reasoning in Expressive Description Logics and Datalog-based query answering over ontologic knowledge bases.

Zhili Zhao (Master)

Freie Universität Berlin  
Computer Science  
Halbauer Weg, Haus 19, Zi. 317  
Berlin  
Germany

zhili@inf.fu-berlin.de

I’m male.  
I’m originally from China/Asia.  
But now I am in Germany/West Europe.
My name is Zhili Zhao. Supported by China Scholarship Council (2010-2014), I joined in Corporate Semantic Web group of Freie Universität Berlin leaded by Prof. Dr. Adrian Paschke in 2010. Currently I am working toward the PhD degree with the topic “Semantic Scientific Workflows for eScience”. My core research interest is developing a rule-agent oriented scientific workflow management system which supports an adaptive scientific workflow execution, especially for the weakly-structured scientific workflows.

Motivation to attend the Summer School

Dear organizers, My name is Zhili Zhao. Currently I am working toward the PhD degree with the topic “Semantic Scientific Workflows for eScience”. Existing efforts focus too much on structured scientific workflows, instead of weakly-structured ones, in which there are a few tasks that are often goal-oriented and done with uncertainties, but are vital for the correct results. In my work, I plan to combine the benefits of rule-based knowledge representation and reasoning with agent technology to support these workflows. This is the third year of my PhD study. I have studied some basic knowledge of Semantic Web technologies, such as: RDF, OWL, Sparql, etc. Moreover, I am also helping my supervisor with the exercise class of his Semantic Business Process Modeling lecture. However, I didn’t study these technologies in a systematic way. I checked the course program and found most of them are very relevant to my PhD study, especially ontology-based modeling, reasoning in expressive description logics, rule-based reasoning and integration of OWL and Rules. Therefore, I really hope I can get a position in the summer school. I am highly aware of the reputation of the summer school, and the conversations with my supervisor who worked at Technical University Dresden several years ago have served me to deepen my interest in attending. I know that, the excellent speakers of the summer school will no doubt broaden my view in this research area, as well as give me precious guidelines. I’m looking forward to your prompt and favorable reply! Thank you very much for your kind processing. Best regards, Zhili Zhao
General Useful Information

Facilities at the Computer Science Building (INF)
Address: Nöthnitzer Straße 46, Dresden-Räcknitz

- **Registration Office**: INF E001 / INF E005
  Registration starts in INF E001 on Sunday, August 18, 2013 from 4 till 6 pm.
  It continues in INF E005 on Monday, August 19, 2013 from 8 till 10 am.

- **Lecture Theatre**: INF E023

- **Computing Facilities**
  We provide access to wireless networking in the ground floor of the Computer Science Faculty building during the Summer School. If you don’t have a notebook with wireless networking, we can provide you a login account for the department computing center.
  You will receive your personal login name and password as well as a short explanation during the registration.
  Please note, that certain internet services (e.g. SMTP) might not be available due to the security policies of our university. To access these services, we suggest you the usage of a VPN service of your university.
  Please note we will not provide any facilities or services for personal printing.

Facilities outside the Computer Science Building

- **(L) Cheap Possibilities for Lunch:**
  - Alte Mensa (university canteen): Mommsenstraße 13 (crossing with Helmholtzstraße)
    Opening hours: Monday till Friday 11.00 – 14.30
  - Neue Mensa (university canteen): Bergstraße 51
    Opening hours: Monday till Friday 10.30 – 14.30
  - Dersim Dürüm-Kebap-Haus: Münchner Straße 21
  - Irodion Pallas: Bienertstraße 55 (crossing with Münchner Straße)
    Opening hours: Tuesday till Sunday 11.30 – 14.30
  - Canteens of the Max Plank Institutes: Nöthnitzer Straße 38 and 40
    Opening hours: Monday till Friday 11.00 – 14.00
– Bäckerei Möbius: Münchner Platz 1
   A baker’s shop, but they also offer small warm dishes
– Firat Kebap-Haus: Bergstraße 68 (crossing with Mommsenstraße)

• (C) Next Cash Machine:
   Sparkasse, Weißbachstraße 2 (crossing with Mommsenstraße)

• (P) Post Offices:

  – Chemnitzer Straße 105
    Opening hours: Monday till Friday 9.00 – 18.00
    Saturday 9.00 – 12.00
  – Nürnberger Straße 31A
    Opening hours: Monday till Friday 9.00 – 18.00
    Saturday 9.00 – 12.00

• (A) Pharmacies

  – Apotheke Am Ei: Liebigstraße 24
    Opening hours: Monday till Friday 7.30 – 19.00
    Saturday 8.00 – 12.00
  – Apotheke Plauen: Chemnitzer Straße 117
    Opening hours: Monday till Friday 8.00 – 19.00
    Saturday 8.00 – 13.00
  – Helmholtz-Apotheke: Rugestraße 13 (at Nürnberger Platz)
    Opening hours: Monday till Friday 8.00 – 18.30
    Saturday 8.00 – 12.00
  – Kreuz-Apotheke: Hohe Straße 70 (crossing with Nüthnitzer Straße)
    Opening hours: Monday till Friday 8.00 – 18.30
    Saturday 9.00 – 12.30
  – Liebig-Apotheke: Liebigstraße 23 (crossing with Bayreuther Straße)
    Opening hours: Monday, Tuesday and Thursday 7.30 – 19.00
    Wednesday and Friday 7.30 – 18.30
    Saturday 8.00 – 12.00
• (D) Physicians
  - Ärztehaus: several doctors specialized in various fields: Bayreuther Straße 30 (crossing with Liebigstraße)
  - Ärztehaus: several doctors specialized in various fields: Liebigstraße 23 (crossing with Bayreuther Straße)
  - Dr. Haroske: Gitterseestraße 15 (outside of map)
  - Dr. Jurke: Nöthnitzer Straße 12
  - Dr. Mergel: Kaitzer Straße 111
# Cultural and Social Programm

Please see the respective web page for more detailed information.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday, Aug 20</td>
<td>Guided Walking City Tour</td>
<td>We meet at 17.45 at the main entrance of the Computer Science building, Nöthnitzer Straße 46.</td>
</tr>
<tr>
<td>Thursday, Aug 22</td>
<td>Excursion to Pillnitz</td>
<td>We meet at 13.10 at the main entrance of the Computer Science building.</td>
</tr>
<tr>
<td>Saturday, Aug 24</td>
<td>Excursion to Meißen</td>
<td>We meet at 08.45 at the main railway station (Hauptbahnhof) at the corner of Burger King.</td>
</tr>
<tr>
<td>Tuesday, Aug 27</td>
<td>Summer School Dinner at Schloss Eckberg</td>
<td>We meet at 18.45 directly at Schloss Eckberg. (tram #3 to 'Albertplatz', then tram #11 to 'Waldschlößchen, then bus #EV11 to 'Elbschlößser')</td>
</tr>
<tr>
<td>Wednesday, Aug 28</td>
<td>Excursion to Saxon Switzerland</td>
<td>We meet at 13.15 at the main railway station (Hauptbahnhof) at the corner of Burger King.</td>
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Integrated Workshop

For this Workshop the following papers have been accepted.

Monday, August 26, 16.30 – 17.00
  Sandeep Kumar (Indian Institute of Technology, India)
  Semantic Web Service Selection Models

Monday, August 26, 17.00 – 17.30
  Silvia Giannini (Politecnico di Barri, Italy)
  Towards a unified framework for distributed data management across
  the semantic web

Thursday, August 29, 16.30 – 17.00
  Anton Dergunov (Lobachevsky State University of Nizhny Novgorod, Russia)
  Knowledge Representation for Performance Analysis

Thursday, August 29, 17.00 – 17.30
  Marzieh Bakhshandeh (Instituto Superior Técnico, Portugal)
  On the Use of Ontologies to Specify and Integrate Enterprise Architecture Models

In case of many questions from the audience this timetable may be stretched.
## Timetable

### First Week  (August 18 – August 24, 2013)

<table>
<thead>
<tr>
<th></th>
<th>SUN</th>
<th>MON</th>
<th>TUE</th>
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<th>THU</th>
<th>FRI</th>
<th>SAT</th>
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<tr>
<td>9.20–9.30</td>
<td>Registration</td>
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<td>Excursion 8.45</td>
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<tr>
<td>9.30–10.30</td>
<td>Opening</td>
<td>Baader</td>
<td>Hitzler</td>
<td>Krötzsch</td>
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<td>Excursion</td>
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<td>11.00–12.00</td>
<td>Rudolph</td>
<td>Rudolph</td>
<td>Krötzsch</td>
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<td>Lehmann</td>
<td>Excursion</td>
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<tr>
<td>13.30–14.30</td>
<td>Baader</td>
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<td>Rudolph</td>
<td>Excursion</td>
<td>Lehmann</td>
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<tr>
<td>15.00–16.00</td>
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<td>Rudolph</td>
<td>Hitzler</td>
<td>Excursion</td>
<td>Haase</td>
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<tr>
<td>16.30–17.30</td>
<td>Registration</td>
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<td>Krötzsch</td>
<td>Excursion</td>
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<tr>
<td>Evening</td>
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<td>Excursion</td>
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### Second Week  (August 25 – August 31, 2013)

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<tr>
<td>9.30–10.30</td>
<td>Lehmann</td>
<td>Aßmann</td>
<td>Janowicz</td>
<td>Eiter</td>
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<tr>
<td>11.00–12.00</td>
<td>Knorr</td>
<td>Aßmann</td>
<td>Janowicz</td>
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<td>Eiter</td>
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<tr>
<td>13.30–14.30</td>
<td>Lehmann</td>
<td>Excursion</td>
<td>Eiter</td>
<td>Farewell</td>
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<tr>
<td>15.00–16.00</td>
<td>Knorr</td>
<td>Excursion</td>
<td>Janowicz</td>
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<tr>
<td>16.30–17.30</td>
<td>Workshop</td>
<td>Excursion</td>
<td>Workshop</td>
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<tr>
<td>Evening</td>
<td></td>
<td></td>
<td>Joint Dinner</td>
<td>Excursion</td>
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Eighth ICCL Summer School 2013

Chairs
Steffen Hölldobler
Pascal Hitzler

Organizers
Julia Koppenhagen
Bertram Fronhöfer
Lukas Schweizer

Sponsors
• DAAD within the program “German Summer Academy”
• MSc Program in Computational Logic
• fluid Operations AG