Vienna Summer of Logic 2014

Vienna Summer of Logic 2014

Organized by

kurt gödel society

In partnership with

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VIENNA
SUMMER
OF LOGIC
2014

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Welcome to the Vienna Summer of Logic

As you receive this brochure, Vienna is hosting the largest scientific conference in the history of logic. The Vienna Summer of Logic (VSL, http://vsl2014.at) consists of twelve large conferences and 80 workshops, attracting more than 2000 researchers from all over the world. This unique event is organized by the Kurt Gödel Society at the Vienna University of Technology and takes place from July 9 to 24, 2014, under the auspices of the Federal President of the Republic of Austria, Dr. Heinz Fischer.

The conferences and workshops deal with the main theme, logic, from three important angles: logic in computer science, mathematical logic, and logic in artificial intelligence.

They naturally gave rise to to the respective streams comprising the following meetings:

Logic in Computer Science / Federated Logic Conference (FLoC)

- 26th International Conference on Computer Aided Verification (CAV)
- 27th IEEE Computer Security Foundations Symposium (CSF)
- 30th International Conference on Logic Programming (ICLP)
- 7th International Joint Conference on Automated Reasoning (IJCAR)
- 5th Conference on Interactive Theorem Proving (ITP)
- Joint meeting of the 23rd EACSL Annual Conference on Computer Science Logic (CSL) and the 29th ACM/IEEE Symposium on Logic in Computer Science (LICS)
- 25th International Conference on Rewriting Techniques and Applications (RTA) joint with the 12th International Conference on Typed Lambda Calculi and Applications (TLCA)
- 17th International Conference on Theory and Applications of Satisfiability Testing (SAT)
- 74 FLoC Workshops
- FLoC Olympic Games (System Competitions)
- SAT/SMT Summer School 2014

Mathematical Logic

- Logic Colloquium 2014 (LC)
- Logic, Algebra and Truth Degrees 2014 (LATD)
- Compositional Meaning in Logic (GeTFun 2.0)
- The Infinity Workshop (INFINITY)
- Workshop on Logic and Games (LG)
- Non-Classical Proofs: Theory, Applications and Tools (NCPROOFS)
- Kurt Gödel Fellowship Competition

Logic in Artificial Intelligence

- 14th International Conference on Principles of Knowledge Representation and Reasoning (KR)
- 27th International Workshop on Description Logics (DL)
- 15th International Workshop on Non-Monotonic Reasoning (NMR)
- 6th International Workshop on Knowledge Representation for Health Care 2014 (KR4HC)

The VSL keynote talks which are addressed to all participants will be given by Franz Baader (Technische Universität Dresden), Edmund Clarke (Carnegie Mellon University), Christos Papadimitriou (University of California, Berkeley) and Alex Wilkie (University of Manchester). Dana Scott (Carnegie Mellon University) will speak in the opening session. Since the Vienna Summer of Logic consists of more than a thousand contributed and invited talks, it is not possible to list even the latter.

The program of the Vienna Summer of Logic is very rich, including not only scientific talks, poster sessions and panels, but also two special events: one is the award ceremony of the Kurt Gödel Research Prize Fellowship Competition, in which the Kurt Gödel Society awards three research fellowship prizes endowed with 100,000 Euro each to the winners. This is the third edition of the competition, themed Logical Mind: Connecting Foundations and Technology this year.

The 1st FLoC Olympic Games form the other special event and are hosted by the Federated Logic Conference (FLoC) 2014. Intended as a new FLoC element, the Games bring together 14 established logic solver competitions by different research communities. In addition to the competitions, the Olympic Games facilitate the exchange of expertise between communities, and increase the visibility and impact of state-of-the-art solver technology. The winners in the competition categories will be honored with Kurt Gödel medals at the FLoC Olympic Games award ceremonies.

Organizing an event like the Vienna Summer of Logic was a challenge. We are indebted to numerous people whose enormous efforts were essential in making this vision become reality. With so many colleagues and friends working with us, we are unable to list them individually here. Nevertheless, as representatives of the three streams of VSL, we would like to particularly express our gratitude to all people who helped to make this event a success: the sponsors and the Honorary Committee; the Organization Committee and the local organizers; the conference and workshop chairs and Program Committee members; the reviewers and authors; and of course all speakers and participants of the many conferences, workshops and competitions.

The Vienna Summer of Logic continues a great legacy of scientific thought that started in Ancient Greece and flourished in the city of Gödel, Wittgenstein and the Vienna Circle. The heroes of our intellectual past shaped the scientific world-view and changed our understanding of science. Owing to their achievements, logic has permeated a wide range of disciplines, including computer science, mathematics, artificial intelligence, philosophy, linguistics, and many more. Logic is everywhere – or in the language of Aristotle,

πάντα πλήρη λογικῆς τέχνης.

Vienna, July 2014

Matthias Baaz, Thomas Eiter, Helmut Veith

Honorary Committee

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Organization Committee

The Vienna Summer of Logic is organized by the Kurt Gödel Society at the Vienna University of Technology.

Vienna Summer of Logic

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Streams within the Vienna Summer of Logic

Logic in Computer Science FLoC	Mathematical Logic	Logic in Artificial Intelligence
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Stefan Szeider Workshop Chair *(Vienna University of Technology)*		
Azadeh Farzan Student Support Program *(University of Toronto)*		
Thomas Krennwallner Olympic Games / Competition Chair *(Vienna University of Technology)*		
Stefan Rümmele Workshop co-Chair *(Vienna University of Technology)*		

Partners

The Vienna Summer of Logic is organized by the Kurt Gödel Society in partnership with the Vienna University of Technology, the University of Vienna, the Institute of Science and Technology Austria and the Academy of Fine Arts Vienna.

The VSL would like to thank the following sponsors:

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Austrian Federal Ministry of Science, Research and Economy
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Artificial Intelligence Journal
European Association for Computer Science Logic
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OrbiTeam Software
Austrian Society for Rigorous Systems Engineering (ARiSE)
College Publications
IOS Press
Kunsthistorisches Museum Wien
HEUER am Karlsplatz
Kunsthalle Wien
Starmühler Agentur & Verlag
Profil

About the Vienna Summer of Logic

The Vienna Summer of Logic (VSL 2014), held in Vienna, Austria, July 9-24, 2014 is the largest conference in the history of logic. This landmark scientific event brings together around 2,000 researchers, academics and students from all over the world, gathering to present important results, emerging trends, and new challenges in symbolic logic as it is applied in computer science, artificial intelligence, and mathematics.

As an ancient intellectual discipline, logic was part of classical Greek philosophy with thinkers such as Aristotle studying the laws of rational argument. In the late 19th and early 20th century, intellectual giants such as Georg Cantor, Gottlob Frege, Bertrand Russell, and David Hilbert pioneered formal logic as a foundation for mathematics. In the 1920s and 1930s, the work of Thoralf Skolem, John von Neumann, Kurt Gödel, Alfred Tarski, Alonzo Church, and Alan Turing firmly established formal logic as a mature mathematical discipline. In the latter half of the 20th century, logical methods became indispensable to the emerging discipline of computer science, with applications in artificial intelligence, complexity theory, database theory, in computer safety and security, and even as a programming language.

Vienna has a proud tradition in logic. In the Vienna Circle school of logical empiricism, led by Moritz Schlick at the University of Vienna in the 1920s, logical methods received pride of place in philosophical theorizing. This ground-breaking movement was significantly influenced by the work of Frege, Russell, Hilbert, and Ludwig Wittgenstein's Tractatus Logico-Philosophicus. It motivated the fundamental theorems obtained by Kurt Gödel around 1930 in Vienna, which stand as some of the most important mathematical results of the 20th century. In the last few decades, mathematicians and computer scientists working on logic in Vienna have re-connected with this notable past and have put Vienna back on the global map of logic. The Vienna Summer of Logic honors and commemorates the great minds of the past by presenting the progress of modern logic in a place which helped shape the early history of the field.

The Vienna Summer of Logic, organized by the Kurt Gödel Society, consists of three blocks of conferences which represent three major currents in this field: computer science, artificial intelligence and mathematical logic. On this occasion, the winners of the three Kurt Gödel Research Prizes, the highest valued awards in logic, will be presented. The Vienna Summer of Logic will also host the first FLoC Olympic Games, featuring numerous competitions between cutting-edge computer implementations of logical methods with real-life applications, such as SAT solvers.

The VSL continues a tradition of joint meetings between logic and computer science which started with the famous Summer Institute for Symbolic Logic at Cornell University in 1957. At that meeting, Michael Rabin and Dana Scott presented their fundamental work on finite automata for which they received the Turing Award – the highest scientific distinction in computer science – in 1976. We are proud that 57 years after Cornell, Professor Scott will present the opening statement of the Vienna Summer of Logic.

About the Kurt Gödel Society

The Kurt Gödel Society (KGS), founded in 1987 and chartered in Vienna, is an international organization dedicated to the support of research in all areas of logic, philosophy and the history of mathematics, above all in connection with the life and work of Kurt Gödel. The KGS is committed to the tradition of logic in Vienna not only as a legacy of Kurt Gödel, but also of the Vienna Circle.

The KGS is proud to have been presided over by influential logicians: Gaisi Takeuti, Daniele Mundici, Ronald Björn Jensen, and Hao Wang have been presidents of the Kurt Gödel Society. Its current president is Petr Hájek.

An important way in which the KGS supports research is by the organization of scientific meetings. Currently, the KGS organizes the Vienna Summer of Logic and in the past, the KGS organized conferences such as the Logic Colloquium (2001), LPAR (2002, 2003), CSL (2003), ESSLLI (2003), the Gödel Centenary (2006), and numerous smaller workshops, summer schools, and single lectures.

In honor of Kurt Gödel, the KGS has carried out the biggest research fellowship prize programs in the history of logic: In 2008 and 2011 ten prizes, each funded with at least 100,000 EUR, were awarded towards supporting groundbreaking research in, and areas surrounding, the foundations of mathematics. At the VSL, three more prizes will be awarded in the third iteration of this program.

About Logic in Austria

Joint Doctoral Program LogiCS - NEW

The Vienna University of Technology, the Graz University of Technology, and the Johannes Kepler University Linz are seeking exceptionally talented and motivated students for their joint doctoral program LogiCS. The LogiCS doctoral college focuses on interdisciplinary research topics covering computational logic, and applications of logic to databases and artificial intelligence as well as to computer-aided verification. For further details, please visit the LogiCS website:

http://logic-cs.at/phd/

Research Groups

Vienna University of Technology (TU Wien)

- **Database and Artificial Intelligence Group** (Georg Gottlob, Reinhard Pichler, Stefan Woltran): *http://www.dbai.tuwien.ac.at/*
- **Knowledge-Based Systems Group** (Thomas Eiter, Stefan Szeider, Uwe Egly, Hans Tompits): *http://www.kr.tuwien.ac.at/*
- **Formal Methods in Systems Engineering Group** (Helmut Veith, Georg Weissenbacher, Florian Zuleger): *http://forsyte.at/*
- **Theory and Logic Group** (Alexander Leitsch, Agata Ciabattoni, Christian Fermüller, Gernot Salzer): *http://logic.at/*
- **Cyber-Physical Systems Group** (Radu Grosu): *http://ti.tuwien.ac.at/cps*
- **Research Unit Computational Logic** (Matthias Baaz, Martin Goldstern, Stefan Hetzl): *http://dmg.tuwien.ac.at/fg2/*

Institute of Science and Technology Austria (IST Austria)

- **Henzinger Group** (Tom Henzinger): *http://ist.ac.at/research/research-groups/henzinger-group/*
- **Chatterjee Group** (Krishnendu Chatterjee): *http://ist.ac.at/research/research-groups/chatterjee-group/*

University of Vienna

- **Kurt Gödel Research Center** (Sy-David Friedman): *http://www.logic.univie.ac.at/*

Graz University of Technology (TU Graz)

- **Formal Methods for Design & Verification Group** (Roderick Bloem):
  http://www.iaik.tugraz.at/content/research/design_verification/

Johannes Kepler University Linz (JKU Linz)

- **Institute for Formal Models and Verification** (Armin Biere, Martina Seidl):
  http://fmv.jku.at/
- **Research Institute for Symbolic Computation - RISC** (Bruno Buchberger, Teimuraz Kutsia):
  http://www.risc.jku.at/

University of Innsbruck

- **Computational Logic Group** (Aart Middeldorp, Georg Moser, René Thiemann):
  http://cl-informatik.uibk.ac.at/

Master and PhD Programs

- **Doctoral Program "Logical Methods in Computer Science"** (LogiCS):
  http://logic-cs.at/phd/
- **European PhD Program in Computational Logic**:
  http://www.epcl-study.eu/
- **Master Program "Computational Intelligence":**
  http://logic-cs.at/master/
- **European Master Program in Computational Logic:**
  http://www.logic.at/compulog/

Organizations

The following institutions provide additional support for logic research by organizing talk/seminar series, funding talks and conferences, etc.:

- **Kurt Gödel Society:**
  http://kgs.logic.at/
- **Vienna Center for Logic and Algorithms:**
  http://vcla.at/
- **Austrian Society for Rigorous Systems Engineering** (ARiSE):
  http://arise.or.at/

Federated Logic Conference

During the past 50 years there has been extensive, continuous, and increasing interaction between logic and computer science. In many respects, logic provides computer science with both a unifying foundational framework and a modeling tool. Indeed, logic has rightly been called "the calculus of computer science", playing, as it does, a crucial role in such diverse areas as artificial intelligence, computational complexity, distributed computing, database systems, hardware design, programming languages, and software engineering. The Federated Logic Conference (FLoC) is the premier meeting focusing on logic and computation, bringing together eight major conferences, 74 workshops and the FLoC Olympic Games.

In 1996, as part of its Special Year on Logic and Algorithms, DIMACS (Center for Discrete Mathematics and Theoretical Computer Science) hosted the first Federated Logic Conference (FLoC 1996). The 1999 Federated Logic Conference (FLoC 1999) was held in Trento, Italy, while FLoC 2006 took place in Seattle, WA, USA. FLoC 2010 was held in Edinburgh, UK and included 8 conferences as well as 48 workshops. The Federated Logic Conference now follows a four-year cycle.

FLoC2014 consists of the following events:

FLoC Conferences

- 26th International Conference on Computer Aided Verification (CAV)
- 27th IEEE Computer Security Foundations Symposium (CSF)
- 30th International Conference on Logic Programming (ICLP)
- 7th International Joint Conference on Automated Reasoning (IJCAR)
- 5th Conference on Interactive Theorem Proving (ITP)
- Joint meeting of the 23rd EACSL Annual Conference on Computer Science Logic (CSL) and the 29th ACM/IEEE Symposium on Logic in Computer Science (LICS)
- 25th International Conference on Rewriting Techniques and Applications (RTA) joint with the 12th International Conference on Typed Lambda Calculi and Applications (TLCA)
- 17th International Conference on Theory and Applications of Satisfiability Testing (SAT)

FLoC Olympic Games

The aim of the FLoC Olympic Games 2014 is to start a tradition in the spirit of the ancient Olympic Games, a Panhellenic sport festival held every four years in the sanctuary of Olympia in Greece, this time in the scientific community of computational logic. Every four years, as part of the Federated Logic Conference, the Games will gather together all the challenging disciplines from a variety of computational logic in the form of solver competitions.

FLoC Workshops

It is a tradition of FLoC to host many workshops, each affiliated with one or several FloC conferences. This year FloC proudly hosts a record number of 74 FloC workshops — 23 two-day workshops and 51 one-day workshops — featuring in total 838 talks and presentations. Each workshop is scientifically organised by independent workshop organisers involving program committees with a total of several hundred members. The selection and organisation of workshops was coordinated by Stefan Szeider (FLoC workshop chair) and Stefan Rümmele (co-chair) with the help of workshop chairs from the eight FLoC conferences: Haifeng Guo (ICLP), Matthias Horbach (IJCAR), Ines Lynce (SAT), Georg Moser (CSL-LICS), David Pichardie (ITP), Aleksy Schubert (RTA-TLCA), Martina Seidl (CAV), and Luca Viganò (CSF).

FLoC Workshops (listed alphabetically)

Two Faces of Complexity 2014	2FC
12th International Workshop on the ACL2 Theorem Prover and its Applications	ACL2
Automated Deduction: Decidability, Complexity, Tractability	ADDCT
Algorithmics of Infinite State Systems 2014	AISS
All about Proofs, Proofs for All	APPA
Automated Reasoning in Quantified Non-Classical Logics	ARQNL
Joint Automated Reasoning Workshop and Deduktionstreffen	ARW-DT
7th International Workshop on Analysis of Security APIs	ASA
7th Workshop on Answer Set Programming and Other Computing Paradigms	ASPOCP
11th International Workshop on Constraint Handling Rules	CHR
International Joint Workshop on Implementation of Constraint and Logic Programming Systems and Logic-based Methods in Programming Environments 2014	CICLOPS-WLPE
5th International Workshop on Classical Logic and Computation	CL&C
The 6th Coq Workshop	Coq
4th International Workshop on the Cross-Fertilization Between CSP and SAT	CSPSAT
10th International Workshop on Developments in Computational Models	DCM
Dependently-Typed Programming	DTP
7th International Workshop on Exploiting Concurrency Efficiently and Correctly	EC2
Joint Workshop on Foundations of Computer Security and Formal and Computational Cryptography	FCS-FCC
Workshop on Formal Reasoning in Distributed Algorithms	FRIDA
2nd International Workshop Fun With Formal Methods	FWFM
Workshop on Gentzen Systems and Beyond 3	GSB
Workshop on Horn Clauses for Verification and Synthesis	HCVS
2014 International Workshop on the HOL Theorem Proving System	HOL
Higher Order Program Analysis	HOPA
Higher Order Rewriting	HOR
3rd International Workshop on Hybrid Systems Biology	HSB
Annual Meeting of the IFIP Working Group 1.6 (Term Rewriting)	IFIP-WG16
Interpolation: From Proofs to Applications	iPRA
Isabelle Workshop 2014	Isabelle
7th Workshop on Intersection Types and Related Systems	ITRS
3rd International Workshop on Confluence	IWC
4th International Workshop on Logic and Search	LaSh
Workshop on Logic and Computational Complexity	LCC
9th International Workshop on Logical Frameworks and Meta-languages: Theory and Practice	LFMTP
3rd International Workshop on Linearity	LINEARITY
5th Workshop on Syntax and Semantics of Low-Level Languages	LOLA

5th International Workshop on Logic and Systems Biology	LSB
2nd Workshop on Natural Language and Computer Science	NLCS
Natural Language Services for Reasoners	NLSR
7th International Workshop on Numerical Software Verification	NSV
The 3rd OWL Reasoner Evaluation Workshop	ORE
4th Workshop on Practical Aspects of Automated Reasoning	PAAR
Parallel Methods for Search & Optimization	ParSearchOpt
3rd International Seminar on Program Verification, Automated Debugging and Symbolic Computation	PAS
FLoC Workshop on Proof Complexity	PC
2nd Workshop on the Parameterized Complexity of Computational Reasoning	PCCR
Workshop on Probabilistic Logic Programming	PLP
5th Pragmatics of SAT workshop	POS
1st Workshop on Logics for Reasoning about Preferences, Uncertainty, and Vagueness	PRUV
Proof, Structure and Computation	PSC
2nd International Workshop on Quantified Boolean Formulas	QBF
Twenty Years of the QED Manifesto	QED
1st International Workshop on Quantification	QUANTIFY
21st RCRA International Workshop on "Experimental Evaluation of Algorithms for solving problems with combinatorial explosion"	RCRA
3rd International Workshop on Memory Consistency Models	REORDER
Reactive Systems: Directions in Development and Analysis	RS
3rd Workshop on Structures and Deduction	SD
12th International Workshop on Satisfiability Modulo Theories	SMT
4th International Workshop on Socio-Technical Aspects in Security and Trust	STAST
3rd Workshop on Synthesis	SYNT
8th International Workshop on Computing with Terms and Graphs	TERMGRAPH
User Interfaces for Theorem Provers	UITP
The 28th International Workshop on Unification	UNIF
The Vampire Workshop	Vampire
International Workshop on Verification of Engineered Molecular Devices and Programs 2014	VEMDP
8th International Verification Workshop	VERIFY
2nd VeriSure Workshop	VeriSure
2nd International Workshop on Verification and Program Transformation	VPT
Working Conference on Verified Software: Theories, Tools, and Experiments	VSTTE
5th International Workshop on Invariant Generation	WING
Workshop on Infinitary Rewriting	WIR
Workshop on Rewriting Techniques for Program Transformations and Evaluation	WPTE
14th International Workshop on Termination	WST
10th International Workshop on Automated Specification and Verification of Web Systems	WWV

Logic in Artificial Intelligence

Taking purposeful action according to principles of reason is considered an expression of intelligence, not only regarding the behaviour of humans. Research in the interdisciplinary field of Artificial Intelligence (AI), encompassing, e.g., research in computer science, psychology, linguistics, philosophy, and other sciences, aims at developing machines and software that exhibit intelligence.

Developing abstract reasoning and problem solving capabilities is at the heart of this endeavour. Initiated by work of the earliest pioneers in the field, formal logic has almost naturally become a primary means for their provision. Logic has been applied to solve a wide variety of problems, including knowledge representation, reasoning, planning and learning. Employing solvers for propositional logic to solve combinatorial search problems provides another, more recent account of this successful concurrence, disclosing logic reasoning engines as powerful tools for the efficient computation of intelligible solutions to AI problems.

Within the "Logic in Artificial Intelligence" stream of VSL, the following events are organized:

14th International Conference on Principles of Knowledge Representation and Reasoning (KR)

The KR conference series is a leading forum for timely in-depth presentation of progress in the theory and principles underlying the representation and computational management of knowledge.

Representing knowledge in a tangible form suitable for processing by dedicated reasoning engines is a fundamental component of many modern intelligent systems and contributes to foundations of longstanding fields including automated planning, databases, and software engineering. Challenges from new and emerging fields include the Semantic Web, computational biology, software agents, natural language comprehension, question answering and video comprehension.

27th International Workshop on Description Logics (DL)

The Description Logic (DL) workshop is the major annual event of the description logic research community. Description logics are a family of knowledge representation languages that have been studied extensively for over two decades; they are widely used as the basis of formal ontology languages and have major applications in a variety of areas, most notably in databases, medical informatics, and the Semantic Web.

15th International Workshop on Non-Monotonic Reasoning (NMR)

NMR is the premier forum for results in the area of non-monotonic reasoning. In this traditional research branch of AI, logic is used to deal with different aspects of incomplete knowledge, including areas like belief revision, reasoning about actions, planning, causality, and argumentation.

International Workshop on Knowledge Representation for Health Care 2014 (KR4HC)

KR4HC aims at attracting the interest of novel research and advances contributing to the definition, representation and exploitation of health care knowledge in medical informatics. As computerized health-care support systems are rapidly becoming more knowledge intensive, the representation of medical knowledge in a form that enables reasoning is growing in relevance and taking a more central role in the area of medical informatics.

As part of the Vienna Summer of Logic, for the first time KR and its affiliated events are co-located with other major events from the field of logic like the Federated Logic Conference (FLoC) and the Logic Colloquium. Logic is the lingua franca of modeling and reasoning about knowledge, and doing so in order to solve problems in AI challenges logic. Thus, the meetings of the AI stream on the one hand highly benefit from, and on the other hand significantly contribute to, the exchange of ideas with researchers from the closely related communities, all of them coming together to Vienna for a unique summer season.

Mathematical Logic

The Mathematical Logic stream consists of two conferences and four workshops:

2014 ASL European Summer Meeting (Logic Colloquium '14)

During the Logic Colloquium '14, the twenty-fifth annual Gödel Lecture will be delivered by J. Knight. The invited speakers are: A. Bauer, P. Blanchette, K. Eisenträger, A. Cordón Franco, V. Fischer, N. Greenberg, L. Kolodziejczyk, B. Miller, M. Reynolds, M. Soskova, and A. Visser. Tutorials will be offered by K. Apt and A. Miquel.

Special Sessions (organizers in parentheses) include:

- Logic in computer science education (H. Veith),
- Logic of games/rational choice (R. Ramanujam),
- Model theory (Z. Chatzidakis),
- Perspectives on induction (M. Baaz, S. Hetzl; joint with LICS/CSL),
- Philosophy of mathematics (Ø. Linnebo),
- Recursion theory (E. Fokina and D. Turetsky), and
- Set theory (M. Goldstern and J. Kellner).

Logic, Algebra and Truth Degrees 2014 (LATD)

The conference "Logic, Algebra and Truth Degrees 2014" will be held on 16-19 July 2014. Logic, Algebra and Truth Degrees is the fourth official meeting of the EUSFLAT Working Group on Mathematical Fuzzy Logic. Mathematical Fuzzy Logic is a subdiscipline of Mathematical Logic that studies the notion of comparative truth. The assumption that "truth comes in degrees" has proved to be very useful in many theoretical and applied areas of Mathematics, Computer Science and Philosophy.

The featured topics include the following:

- Proof theory and computational complexity
- Algebraic semantics and abstract algebraic logic
- First, higher-order and modal formalisms
- Applications and foundational issues
- Geometric and game theoretic aspects

The conference scientific programme includes two tutorials, six invited lectures and contributed talks. The tutorials are given by Franz Baader and Vincenzo Marra. The invited speakers are:

Silvio Ghilardi, Melvin Fitting, George Metcalfe, Dale Miller, Dana Scott, and Alasdair Urquhart.

Workshop on Compositional Meaning in Logic (GeTFun 2.0)

The workshop takes place 22-23 July, 2014.

Workshop on Logic and Games (LG)

The workshop takes place on July 15, 2014.

Workshop on Proofs: Theory, Applications and Tools (NCPROOFS)

The workshop takes place on July 20, 2014.

Infinity Workshop

The workshop takes place 9-11 July, 2014.

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Wien.
Die Stadt fürs Leben.

Sommer in Wien. Ein lauer Sommerabend, ein kühles Getränk und Kultur unter freiem Himmel: Mit dem Schönwetter halten auch alljährlich die Sommerkinos Einzug in die Stadt. Wien fördert die Sommerkinos und damit auch ein Stück urbanes Lebensgefühl. Ob Hollywood-Blockbuster, Musikfilme, Science Fiction oder Cineasten-Kleinode, ob auf dem Dach, vor dem Schloss oder in der Wiese – die Filme und Locations sind so vielseitig wie die Stadt selbst. Ein Tipp: Profis haben Decke und Gelsenschutz mit dabei. So steht dem Vergnügen nichts mehr im Wege: Film ab!

www.sommerkinos.wien.at

StaDt Wien
Wien ist anders.

Conference Overview

Mathematical Logic

Wed 9th	Thu 10th	Fri 11th	Sat 12th	Sun 13th	Mon 14th	Tue 15th	Wed 16th	Thu 17th	Fri 18th	Sat 19th	Sun 20th	Mon 21st	Tue 22nd	Wed 23rd	Thu 24th
Infinity					Logic Colloquium										
							LATD								
						LG		KGFC			NC PROOFS		GeTFun 2.0		

Logic in Computer Science / Federated Logic Conference (FLoC)

Wed 9th	Thu 10th	Fri 11th	Sat 12th	Sun 13th	Mon 14th	Tue 15th	Wed 16th	Thu 17th	Fri 18th	Sat 19th	Sun 20th	Mon 21st	Tue 22nd	Wed 23rd	Thu 24th
			WS Block 1					WS Block 2						WS Block 3	
					ITP				CAV						
	SAT/SMT School				CSL-LICS				CSF						
					RTA-TLCA				ICLP						
					SAT				IJCAR						

Logic in Artificial Intelligence

Wed 9th	Thu 10th	Fri 11th	Sat 12th	Sun 13th	Mon 14th	Tue 15th	Wed 16th	Thu 17th	Fri 18th	Sat 19th	Sun 20th	Mon 21st	Tue 22nd	Wed 23rd	Thu 24th
								DL				KR4HC			
								NMR			KR				

Registration and Help Desk

You have to register in order to participate in the VSL conferences and workshops. Please do so before your conference/workshop begins.

The registration desk is located in the

Freihaus Building (FH), in front of Hörsaal 1 (Area C, Red)

on the first floor. The registration opens on July 12, 2014. All VSL participants except those who registered for the workshops starting on July 12 can register a day before their conference/workshop starts.

You will receive your badge and all conference materials at the registration desk.

The registration desk also serves as a help desk.

Conference Locations

Conference	*Building*	*Area*	*Floor*	*Room*
CAV	Freihaus (FH)	Area A, Green	2	Hörsaal 6 on July 18
	Freihaus (FH)	Area C, Red	1	Hörsaal 1 for the other days
CSL-LICS	Freihaus (FH)	Area C, Red	1	Hörsaal 1
	Freihaus (FH)	Area A, Green	2	Hörsaal 5
CSF	Freihaus (FH)	Area A, Green	2	Hörsaal 6
ICLP	Freihaus (FH)	Area B, Yellow	2	Hörsaal 8
IJCAR	Freihaus (FH)	Area A, Green	2	Hörsaal 5
ITP	Freihaus (FH)	Area B, Yellow	2	Hörsaal 8
RTA-TLCA	Treitlstraße		Ground floor	Informatikhörsaal (enter through Treitlstraße 3)
SAT	Freihaus (FH)	Area A, Green	2	Hörsaal 6
KR	Gußhausstraße (EI)	CD Trakt	Ground floor	EI 7
	Gußhausstraße (EI)	CA Trakt	Ground floor	EI 9
DL	Gußhausstraße (EI)	CD Trakt	Ground floor	EI 7
NMR	Gußhausstraße (EI)	CA Trakt	Ground floor	EI 9
LATD	Main Building (MB)	Stiege 1	1	Festsaal
	Main Building (MB)	Stiege 3	3	Hörsaal 15
Logic Colloquium	Main Building (MB)	Stiege 1	Ground floor	Prechtl-Saal (main room, for plenary talks, tutorials)
	Main Building (MB)	Stiege 3	3	Hörsaal 14 + Hörsaal 14A
	Main Building (MB)	Stiege 3	3	Hörsaal 15
	Main Building (MB)	Stiege 7	1	Aufbaulabor
	Main Building (MB)	Stiege 6	4	Seminarraum 2
	Main Building (MB)	Stiege 6	4	Seminarraum 3
	Main Building (MB)	Stiege 6	4	Seminarraum 4
	Main Building (MB)	Stiege 6	4	Seminarraum 5
	Main Building (MB)	Stiege 6	4	Seminarraum 6
	Main Building (MB)	Stiege 6	4	Seminarraum 7
	Main Building (MB)	Stiege 2	3	Seminarraum 212/232
	Main Building (MB)	Stiege 5	2	Seminarraum 225
	Main Building (MB)	Stiege 4a	Ground floor	GUT Schulungsraum
	Main Building (MB)	Stiege 1	4	Seminarraum Kuppel
	Main Building (MB)	Stiege 1	3	Zeichensaal 15

Venues

Main Building (MB): Logic

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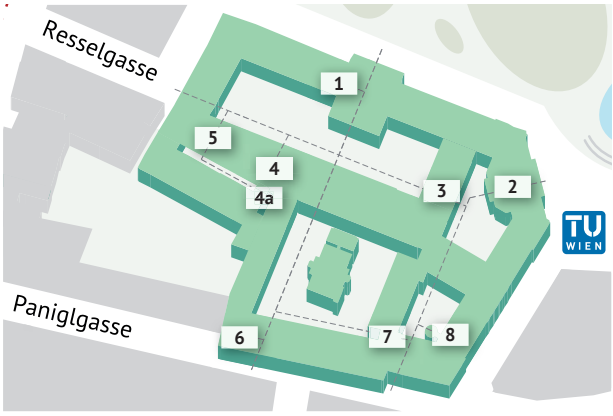
The Mathematical Logic Stream

takes place in the Main Building (MB) of the Vienna University of Technology.

Address: Karlsplatz 13, 1040 Vienna
Subway: **U1, U2, U4** (station name: **Karlsplatz**)

Tram lines: **1, 62, Wiener Lokalbahn/Badner Bahn** (station name: **Resselgasse**)



Stairway (Stiegen) numbers at Main Building (MB)

Additional Locations

Informatikhörsaal (RTA-TLCA)

Address: Treitlstraße 3, 1040 Vienna, ground floor

The Informatikhörsaal is in the building right next to Freihaus.

Seminarraum 1/3 OPG (ICLP Summer School)

Address: Operngasse 11, 1040 Vienna, third floor

This seminar room is also in the building right next to Freihaus, but accessible only through the Operngasse entrance.

Seminarraum 107/1

Address: Goldenes Lamm, Wiedner Hauptstraße 7, 1040 Vienna, first floor

Freihaus Building (FH): CS

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The Logic in Computer Science Stream (FLoC)

takes place in the Freihaus building (FH) of the Vienna University of Technology, except for RTA-TLCA which is in the Informatikhörsaal (see further below).

Address: Wiedner Hauptstraße 8-10, 1040 Vienna

Subway: **U1, U2, U4** (station name: **Karlsplatz**)
Tram lines: **1, 62, Wiener Lokalbahn/Badner Bahn** (station name: **Resselgasse**)

Gußhausstraße/Electrotechnical Institute Building (EI): AI

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The Logic in Artificial Intelligence Stream and the VSL keynote talks

take place in the Gußhausstraße building (EI).

Address: Gußhausstraße 25-29, 1040 Vienna

Subway: **U1, U2, U4** (station name: **Karlsplatz**)
Tram lines: **1, 62, Wiener Lokalbahn/Badner Bahn** (station name: **Paulanergasse**)

U1 U2 U4
Karlsplatz
Exit Wiedner Hauptstr.
1 62
Karlsplatz
U2
U4
U1
U1 U2 U4
Karlsplatz
Exit Karlsplatz
U1 U2 U4
Karlsplatz
Exit Resselpark
Resselpark
Friedrichstraße
Treitlstraße
Informatikhörsaal
Freihaus
(FH)
Registration
Operngasse
Wiedner Hauptstraße
Resselgasse
Main Building (MB)
1 62
Resselgasse
Paniglgasse
Argentinierstraße
Karlsgasse
Frankenberggasse
1 62
Schleifmühlgasse
Gußhausstraße
Gußhausstraße (EI)
1 62
Paulanergasse
Paulanergasse
Favoritenstraße
Wiedner Hauptstraße
U1
Taubstummengasse
Taubstummengasse
U1
Naschmarkt
Rechte Wienzeile
59A
4A
Where am I?
http://vsl2014.at/go/me

Workshop Locations

Workshop	*Building*	*Area*	*Floor*	*Room*
2FC	Freihaus (FH)	Area A, Green	8	Dissertantenraum
ACL2	Freihaus (FH)	Area B, Yellow	2	Hörsaal 7
ADDCT	Freihaus (FH)	Area A, Green	8	Zeichensaal 1
AISS	Freihaus (FH)	Area B, Yellow	5	Seminarraum 134
APPA	Freihaus (FH)	Area B, Yellow	4	Seminarraum 325/1
ARQNL	Freihaus (FH)	Area B, Yellow	9	Seminarraum 138C
ARW-DT	Freihaus (FH)	Area B, Yellow	2	Hörsaal 3
ASA	Main Building (MB)	Stiege 4	1	Zeichensaal 13
ASPOCP	Freihaus (FH)	Area B, Yellow	7	Seminarraum 138A
CHR	Freihaus (FH)	Area B, Yellow	2	Hörsaal 7
CICLOPS-WLPE	Freihaus (FH)	Area B, Yellow	2	Hörsaal 7
CLC	Freihaus (FH)	Area A, Green	8	Dissertantenraum
Coq	Main Building (MB)	Stiege 3	3	Hörsaal 14A
CSPSAT	Main Building (MB)	Stiege 1	3	Zeichensaal 15
DCM	Freihaus (FH)	Area C, Red	7	Seminarraum 138B
DTP	Freihaus (FH)	Area B, Yellow	4	Seminarraum 325/1
EC2	Freihaus (FH)	Area A, Green	4	Seminarraum 101C
FCS-FCC	Main Building (MB)	Stiege 7	Ground floor	Hörsaal 7
FRIDA	Freihaus (FH)	Area A, Green	5	Seminarraum 104
FWFM	Freihaus (FH)	Area B, Yellow	5	Seminarraum 134
GeTFun 2.0	Freihaus (FH)	Area B, Yellow	2	Hörsaal 4
GSB	Freihaus (FH)	Area B, Yellow	7	Seminarraum 138A
HCVS	Freihaus (FH)	Area B, Yellow	5	Seminarraum 134A
HOL	Freihaus (FH)	Area A, Green	7	CAD 2
HOPA	Freihaus (FH)	Area B, Yellow	9	Seminarraum 138C
HOR	Freihaus (FH)	Area A, Green	4	Seminarraum 101C
HSB	Freihaus (FH)	Area A, Green	3	Seminarraum 101A
IFIP-WG16	Freihaus (FH)	Area A, Green	4	Seminarraum 101C
iPRA	Freihaus (FH)	Area A, Green	3	Seminarraum 101A
Isabelle	Freihaus (FH)	Area B, Yellow + Area A, Green	Yellow: 9 / Green: 8	Seminarraum 138C + Zeichensaal 1
ITRS	Main Building (MB)	Stiege 4	1	Zeichensaal 14
IWC	Freihaus (FH)	Area B, Yellow	4	Seminarraum 303
KR4HC	Gußhausstraße (EI)	CD Trakt	Ground floor	EI 8
LaSh	Main Building (MB)	Stiege 7	1	Aufbaulabor
LCC	Freihaus (FH)	Area A, Green	7	Zeichensaal 3
ICLP DC	Freihaus (FH)	Area A, Green	6	Seminarraum 107

Workshop	*Building*	*Area*	*Floor*	*Room*
LFMTP	Freihaus (FH)	Area A, Green	8	Zeichensaal 1
LG	Main Building (MB)	Stiege 6	2	Hörsaal 12
LINEARITY	Freihaus (FH)	Area B, Yellow	10	Seminarraum 136
LOLA	Freihaus (FH)	Area A, Green	6	Seminarraum 107
LSB	Freihaus (FH)	Area B, Yellow	5	Seminarraum 134A
NCPROOFS	Freihaus (FH)	Area A, Green	5	Seminarraum 104
NLCS	Freihaus (FH)	Area A, Green	7	CAD 2
NLSR	Freihaus (FH)	Area A, Green	7	CAD 2
NSV	Freihaus (FH)	Area B, Yellow	2	Hörsaal 2
ORE	Freihaus (FH)	Area A, Green	3	Seminarraum 101A
PAAR	Freihaus (FH)	Area B, Yellow	2	Hörsaal 7
ParSearchOpt	Main Building (MB)	Hof 1	Ground floor	Hörsaal 4
PAS	Freihaus (FH)	Area B, Yellow	7	Seminarraum 138A
PC	Freihaus (FH)	Area A, Green	3	Seminarraum 101B
PCCR	Freihaus (FH)	Area B, Yellow	2	Hörsaal 3
PLP	Freihaus (FH)	Area B, Yellow	5	Seminarraum 134
POS	Freihaus (FH)	Area B, Yellow	2	Hörsaal 3
PRUV	Freihaus (FH)	Area A, Green	8	CAD 1
PSC	Freihaus (FH)	Area A, Green	8	CAD 1
QBF	Freihaus (FH)	Area B, Yellow	2	Hörsaal 2
QED	Freihaus (FH)	Area B, Yellow	2	Hörsaal 4
QUANTIFY	Freihaus (FH)	Area B, Yellow	10	Seminarraum 136
RCRA	Main Building (MB)	Stiege 6	2	Hörsaal 12
REORDER	Freihaus (FH)	Area B, Yellow	2	Hörsaal 4
RS	Freihaus (FH)	Area A, Green	7	Zeichensaal 3
SD	Freihaus (FH)	Area A, Green	8	Zeichensaal 1
SMT	Freihaus (FH)	Area A, Green	5	Seminarraum 104
STAST	Main Building (MB)	Stiege 2	3	Seminarraum 212-232
SYNT	Freihaus (FH)	Area A, Green	3	Seminarraum 101B
TERMGRAPH	Freihaus (FH)	Area B, Yellow	3	Seminarraum 325/2
UITP	Freihaus (FH)	Area A, Green	6	Seminarraum 107
UNIF	Freihaus (FH)	Area A, Green	5	Seminarraum 104
VAMPIRE	Freihaus (FH)	Area B, Yellow	5	Seminarraum 134
VEMDP	Freihaus (FH)	Area B, Yellow	10	Seminarraum 136
VERIFY	Freihaus (FH)	Area B, Yellow	2	Hörsaal 3
VeriSure	Freihaus (FH)	Area B, Yellow	2	Hörsaal 2
VPT	Freihaus (FH)	Area A, Green	8	Dissertantenraum
VSTTE	Freihaus (FH)	Area A, Green	7	Zeichensaal 3
WING	Freihaus (FH)	Area B, Yellow	2	Hörsaal 3
WIR	Freihaus (FH)	Area A, Green	4	Seminarraum 101C
WPTE	Freihaus (FH)	Area B, Yellow	2	Hörsaal 4
WST	Freihaus (FH)	Area A, Green	3	Seminarraum 101B
WWV	Freihaus (FH)	Area A, Green	6	Seminarraum 107

Special Events Overview

Time	*Mon, 14th*	*Tue, 15th*	*Wed, 16th*	*Thu, 17th*	*18th*	*Sat, 19th*	*Sun, 20th*	*Mon, 21st*	*Tue, 22nd*
08:45-10:15	Welcome addresses VSL opening: **Dana Scott** VSL keynote talk: **Christos Papadimitriou** (90 min)	FLoC plenary talk: **Orna Kupferman** (60 min)	VSL keynote talk: **Alex Wilkie** (60 min)	FLoC panel (90 min)		FloC panel (90 min)	FLoC plenary talk: **Véronique Cortier** (60 min)	VSL keynote talk: **Franz Baader** (60 min)	VSL keynote talk: **Edmund Clarke** (60 min)
10:15-10:45	*Coffee break*								
13:00-14:30	*Lunch break*								
16:00-16:30	*Coffee break*								
16:30-18:00				1st VSL Joint Award Ceremony until 19:00				2nd VSL Joint Award Ceremony until 19:00	
18:00		SIGLOG Announcement							SIGLOG Announcement
18:30-19:00							KR reception (Schönbrunn Orangerie)		
From 19:00	**20:00** VSL opening reception at the Rathaus/ Vienna City Hall (3-4hrs)	1st public lecture (Karl Sigmund, Kuppelsaal)	VSL banquet 1 (Schönbrunn Orangerie)	**21:00** Student reception (Transporter Bar)		VSL reception 2 (University of Vienna, Arkadenhof) **22:00** 2nd student reception (Säulenhalle in Volksgarten)	VSL banquet 2 (Schönbrunn Orangerie)	2nd public lecture (Friedrich Stadler, Kuppelsaal)	**19:30** KR dinner (Museum of Natural History)

FLoC, KR or Logic Colloquium events

VSL Events

Special Events

Monday, July 14th

Time	*Event*	*Session Chair*	*Location*
8:45	Welcome address (Rector Sabine Seidler)	Agata Ciabattoni	EI, EI 7 (live) EI, EI 9 (stream) EI, EI 10 (stream) FH, Hörsaal 1 (stream)
8:50	Welcome address (Matthias Baaz, Thomas Eiter, Helmut Veith)		
8:55	VSL opening statement (Dana Scott)		
9:15	VSL keynote talk (Christos Papadimitriou: Computational Ideas and the Theory of Evolution)	Georg Gottlob	
20:00	VSL opening reception		The Rathaus / Vienna City Hall

Tuesday, July 15th

Time	*Event*	*Session Chair*	*Location*
8:45	FLoC plenary talk (Orna Kupferman: From Reachability to Temporal Specifications in Game Theory)	Moshe Vardi	FH, Hörsaal 1
18:00	SIGLOG announcement		FH, Hörsaal 5
19:00	Public lecture (Karl Sigmund: Gödel in Vienna)		MB, Kuppelsaal

Wednesday, July 16th

Time	*Event*	*Session Chair*	*Location*
8:45	VSL keynote talk (Alex Wilkie: The theory and applications of o-minimal structures)	Matthias Baaz	EI, EI 7 (live) EI, EI 9 (stream) EI, EI 10 (stream) FH, Hörsaal 1 (stream)
19:00	VSL banquet 1		Schönbrunn: Orangerie

Thursday, July 17th

Time	*Event*	*Moderator*	*Location*
8:45	FLoC panel (Publication Models in Computing Research: Is a Change Needed? Are We Ready for a Change?)	Moshe Vardi	FH, Hörsaal 1
16:30	First VSL joint award ceremony		MB, Kuppelsaal
21:00	Student reception		Transporter Bar

Saturday, July 19th

Time	*Event*	*Moderator*	*Location*
8:45	FLoC panel (Computational Complexity and Logic: Theory vs. Experiments)	Helmut Veith	FH, Hörsaal 1
19:00	VSL reception 2		University of Vienna: Courtyard
22:00	Student reception		Säulenhalle in Volksgarten

Sunday, July 20th

Time	*Event*	*Session Chair*	*Location*
8:45	FLoC plenary talk (Véronique Cortier: Electronic voting: how logic can help?)	Andrei Voronkov	FH, Hörsaal 1
18:30	KR reception		Schönbrunn: Orangerie
19:00	VSL banquet 2		Schönbrunn: Orangerie

Monday, July 21st

Time	*Event*	*Session Chair*	*Location*
8:45	VSL keynote talk (Franz Baader: Ontology-Based Monitoring of Dynamic Systems)	Thomas Eiter	EI, EI 7 (live) EI, EI 9 (stream) EI, EI 10 (stream) FH, Hörsaal 1 (stream)
16:30	Second VSL joint award ceremony		MB, Kuppelsaal
19:00	Public lecture (Friedrich Stadler: Vienna Circle(s)- Between Philosophy and Science in Cultural Context)		MB, Kuppelsaal

Tuesday, July 22nd

Time	*Event*	*Session Chair*	*Location*
8:45	VSL keynote talk (Edmund Clarke: Verification of Computer Systems with Model Checking)	Helmut Veith	EI, EI 7 (live) EI, EI 9 (stream) EI, EI 10 (stream) FH, Hörsaal 1 (stream)
18:00	SIGLOG announcement		FH, Hörsaal 8
19:30	KR dinner		Museum of Natural History

Public transport to:

Museum of Natural History

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Address: Burgring 7, 1010 Vienna

Subway **U2 and U3** (station name: **Volkstheater**)

Tram lines **1, 2, 46, 49, D** (station name: **Dr. Karl Renner Ring**)

University of Vienna

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Address: Universitätsring 1, 1010 Vienna

Subway **U2** (station name: **Schottentor**)

Tram lines **1, D, 37, 38, 40, 41, 42, 43, 44** (station name: **Schottentor**)

Schönbrunn: Orangerie

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http://www.orangerie-schoenbrunn.at

Address: Schönbrunner Schloßstraße 47, 1130 Vienna

Subway **U4** (station name: **Schönbrunn**)

Tram lines **10** and **58** (station name: **Schönbrunn Schlossallee**)

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The Rathaus / Vienna City Hall

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Address: Felderstraße 1, 1010 Vienna
Subway **U2** (station name: **Rathaus**)
Tram lines **1** and **D** (station name: **Rathausplatz/Burgtheater**)

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Student Receptions

Säulenhalle in Volksgarten

http://saeulenhalle.at/en

Address: Burgring, 1010 Vienna
Subway **U2** and **U3** (station name: **Volkstheater**)
Tram lines **1, 2, 46, 49, D** (station name: **Dr. Karl Renner Ring**)

Transporter Bar

www.transporterbar.at

Address: Kettenbrückengasse 1/corner of Margaretenstraße 54, 1050 Vienna
Subway **U4** (station name: **Kettenbrückengasse**)
Bus line **59A** (station name: **Schönbrunner Str./ Kettenbrückengasse**)

Cultural Program

Exhibition: "VSL 2014: Kurt Gödel and the Origins of Logic in Vienna"

Opening: July 14 at 18:30, with Peter Weibel (ZKM Karlsruhe) and Patricia Blanchette (University of Notre Dame)

Location: Academy of Fine Arts, Vienna (entrance hall / Aula) – 5 min walking distance from the VSL registration desk

Open daily from July 15 to 24, 10:00-18:00

Address: Schillerplatz 3, 1010 Vienna

Subway **U1, U2, U4** (station name: **Karlsplatz**) or Subway **U2** (station name: **Museumsquartier**)

Tram lines **1, 2** (station name: **Oper**) or tram lines **1, 2, D** (station name: **Burgring**)

Kunsthistorisches Museum Wien / Museum of Fine Arts Vienna

Want to meet Aristotle? Or at least one of the finest antique busts of the forefather of logic? Then go and see this fine work of art from the second century CE at the Kunsthistorische Museum, one of the most eminent fine art collections in the world located a 10 minute walk from the conference venue. Simply present your registration from July 9-24 at the museum's cash desk and receive entry at a reduced rate of € 11. You will find Aristotle in the collection of Greek and Roman antiquities on the ground floor and will have access to all other collections of the Kunsthistorische Museum. For details see

http://www.khm.at/en/visit/besucherinformation/access-contact

Address: Maria Theresien Platz, 1010 Vienna – 10 min walking distance from the VSL registration desk

Subway **U2, U3** (station name: **Volkstheater**)

Tram lines **1, 2, D** (station name: **Burgring/Kunsthistorisches Museum**)

Logic Lounge

The Logic Lounge is the pop-up meeting place for friends of logic from science and the public. During the Vienna Summer of Logic 2014 logicians from the fields of philosophy, mathematics, computer science and artificial intelligence present basic concepts of the "science of reasoning". Discussing these concepts with their hosts live and in public for exactly an hour from 17.00 to 18.00 on seven dates July 14–23 the scientists offer insights into the millennium old discipline of logic, celebrating the antique concept of the philosophical symposium (from Greek συμπίνειν sympinein, "to drink together").

Set at the Heuer Coffee Bar Garden Restaurant in the Kunsthalle Wien right on the Karlsplatz within easy reach of the three venues the Logic Lounge is the enlightening and entertaining epicenter of the world's biggest conference on logic. The participants are (in chronological order): Christos Papadimitriou, Georg Gottlob, Richard Zach, Roderick Bloem, Byron Cook, Moshe Vardi and Agata Ciabattoni. See

http://vsl2014.at/logiclounge

for the program.

Location: Heuer Coffee Bar Garden Restaurant

Address: Kunsthalle Wien Karlsplatz, Treitlstraße 2, 1040 Vienna – 2 min walking distance from the VSL registration desk

Subway **U1, U2, U4** (station name: **Karlsplatz**)

Tram lines **1, 62** (station name: **Resselgasse**) or **1, 62, D** (station name: **Oper**)

Kurt Gödel Research Prize Fellowship

(Organized by the Kurt Gödel Society with support from the John Templeton Foundation)

http://fellowship.logic.at

The third round of the Kurt Gödel Research Prize Fellowships Program, under the title: "Connecting Foundations and Technology" aims at supporting young scholars in early stages of their academic careers by offering highest fellowships in history of logic. Young scholars being less or exactly 40 years old at the time of the commencement of the Vienna Summer of Logic (July 9, 2014) have competed with their scientific projects for one of the fellowship awards in the amount of EUR 100,000 in the following areas:

- Logical Foundations of Mathematics
- Logical Foundations of Computer Science and
- Logical Foundations of Artificial Intelligence

The following three Boards of Jurors were in charge of choosing the finalists and the winners:

Logical Foundations of Mathematics:

Jan Krajíček, Angus Macintyre, and Dana Scott (Chair).

Logical Foundations of Computer Science:

Franz Baader, Johann Makowsky, and Wolfgang Thomas (Chair).

Logical Foundations of Artificial Intelligence:

Luigia Carlucci Aiello, Georg Gottlob (Chair), and Bernhard Nebel.

The finalists are:

In Logical Foundations of Mathematics category:

- Yong Cheng. Exploring the HOD Conjecture
- Arno Pauly. The descriptive theory of represented spaces
- Marcin Sabok. Classification: in search of groups
- Sam Sanders. The road less travelled towards Hilbert's program

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In Logical Foundations of Computer Science category:

- Sicun Gao. Descriptive Control Theory
- Cameron Hill. Category, measure and discrete mathematics
- Ori Lahav. Tractable Automated Reasoning: Theory and Applications
- Matteo Mio. Quantitative Modal Logics

In Logical Foundations of Artificial Intelligence category:

- Alessandro Abate. Reconciling inductive and deductive reasoning for uncertainty quantification and propagation
- Vaishak Belle. Pushing the Frontiers of Cognitive Robotics: Degrees of Belief, Continuous Domains and Beyond
- Gianluigi Greco. Collective Behavior in Social Environments: Models and Complexity
- Sebastian Rudolph. Toward a Grand Unified Theory of Decidability in Logic-Based Knowledge Representation

FLoC Olympic Games 2014: Citius, Maius, Potentius

History marks the year 776 BCE as the start of the ancient *Olympic Games*, a Panhellenic sport festival held every four years in the sanctuary of Olympia in Greece. The event was held in honor of Zeus, the Greek king of the gods. This ancient ritual consists of a number of heterogeneous and competitive sport events, including such well-known disciplines as racing, jumping, discus throwing, and wrestling. It was also in ancient Greece between the 5th and 4th centuries BCE, when Classical Greek philosophers such as Aristotle placed logic at the center of Western philosophy.

In the year 2014, 2790 years after the first ancient Games and more than 25 centuries since those Greek philosophers had become immortal, we hold on the site of the Vienna Summer of Logic the *6th Federated Logic Conference (FLoC)* and the first instalment of the *FLoC Olympic Games*.

The aim of the FLoC Olympic Games is to start a tradition in the spirit of the ancient contest, this time in the scientific community of computational logic. Every four years, as part of the Federated Logic Conference, the Games will gather together all the challenging disciplines from a variety of computational logic in the form of the solver competitions.

If you wish to further understand the analogies between ancient Greece and the Vienna Summer of Logic, consider this: while the Classical Greeks left a legacy of philosophy and logic, modern scientists build on that legacy and work hard to advance the effectiveness of logic in computer science, creating a new field that would have rocked the imagination of the ancient philosophers, had they had a chance to imagine such. While human athletes fought for victory and fame in ancient Greece, the FLoC Olympic Games have computer programs competing against each other, and the success in a contest brings equal fame and reward to those computer programs with the best performance as well as to the talent of the scientists and engineers to whom the performance is owed.

If the picture is still insufficient for you, imagine thousands of scientists and engineers inspired to present new insights and results, and celebrate all their progress and achievements together.

The major part of the FLoC Olympics are the solver competitions, which contribute greatly to spurring the development and improving the performance of the systems and benchmarks concerning logic-related research in Computer Science. Without the continuous improvements due to the persistent work of competitors and competition organizers, the practical impact of these logic-based systems would be little more than an ambitious yet fruitless dream. The competition organizers treat every contestant on equal terms and separate the wheat from the chaff by setting as rigorous testing conditions as those required to separate a clean room from environment. Competitions base their evaluation of the participating systems on a number of criteria ranging over a selected group of benchmark problems that are carefully chosen by the competition community. The victors of the competitions are chosen via objective parameters, such as computation time and the total number of solved problems, using hundreds of computers working over the period of several days or weeks to facilitate the decision. This empirical method allows the computational logic community to identify powerful ideas and use them in future work, resulting in tools that are faster, applicable to bigger problem instances, and adapted to solve more powerful theories. Hence the mantra for the FLoC Olympic Games shall be

Citius, Maius, Potentius

a Latin phrase adapted from the Olympic motto that translates to *Faster, Bigger, More Powerful.*

The arena had been set up to display the competition events to a broad audience at the Vienna Summer of Logic. Big Screen events show live performances of the individual competitions.

At the Award Ceremonies, the competition organizers will have the opportunity to present their competitions to the public and give away special prizes, the prestigious Kurt Gödel medals, to their successful competitors. This reinforces the main goal of the FLoC Olympic Games, that is, to facilitate the visibility of the competitions associated with the conferences and workshops of the Federated Logic Conference during the Vienna Summer of Logic. From the wide field of satisfiability solvers to automatic theorem provers and term rewriters, from declarative logic programming solvers and ontology reasoners to automatic software verifiers, from programs that check models of hardware designs to solvers that automatically synthesize computer programs, and to provers that test program termination, the FLoC Olympic Games will bring together theorists and practitioners, allowing them to learn the advancements and new results in other fields, and gain new insights. And last but not least, the Games will celebrate not only the champions, but all the contenders of the FLoC Olympics whose participation makes the competitions what they are and motivates everyone to show their best, as we believe it is not the winning but the participation that counts.

July 2014, Thomas Krennwallner

Participating Competitions

The following competitions are part of the FLoC Olympic Games 2014:

- Fifth Answer Set Programming Competition (ASPCOMP 2014)
- The 7th IJCAR ATP System Competition (CASC-J7)
- 3rd Confluence Competition (CoCo 2014)
- Configurable SAT Solver Challenge (CSSC 2014)
- Hardware Model Checking Competition (HWMCC 2014)
- Ninth Max-SAT Evaluation (Max-SAT 2014)
- OWL Reasoner Evaluation (ORE 2014)
- QBF Gallery 2014
- SAT Competition 2014 (SAT-COMP 2014)
- Satisfiability Modulo Theories solver competition (SMT-COMP 2014)
- Competition on Software Verification (SV-COMP 2014)
- Syntax-Guided Synthesis Competition (SyGuS-COMP 2014)
- Synthesis Competition (SYNTCOMP 2014)
- Termination Competition (termCOMP 2014)

VSL Joint Award Ceremonies

The Vienna Summer of Logic features two joint award ceremonies during which distinguished laureates will receive prizes for their excellent work or lifetime achievements. Both ceremonies are located in the official flagship hall of the Vienna University of Technology called Kuppelsaal (Main Building). Renowned scientists will present the recipients of each award with Kurt Gödel Society medals.

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First VSL Joint Award Ceremony: Thursday, July 17 2014, 16:30-19:00

The first VSL Joint Award Ceremony will host

Kurt Gödel Research Prize Fellowships Program Award Ceremony

http://fellowship.logic.at/

with three categories: Logical Foundations of Mathematics, Computer Science, and Artificial Intelligence.

FLoC Olympic Games Award Ceremony 1

http://vsl2014.at/olympics/

featuring five competitions on Confluence (CoCo), Configurable SAT Solver Challenge (CSSC), Maximum Satisfiability (Max-SAT), Quantified Boolean Formulas (QBF Gallery), and Satisfiability (SAT-COMP).

Musical interlude by Adamas string quartet: *Tribute to Kurt Gödel* (Michael F.P. Huber, op.55; world premiere).

The Adamas string quartet, formed by Claudia Schwarzl (violin), Roland Herret (violin), Anna Dekan (viola), and Jakob Gisler (violoncello), is a leading young quartet in Vienna. It regularly performs in concerts worldwide and has been honored with prizes and awards of many competitions. The artists are open to unconventional ideas and projects such as this tribute to Kurt Gödel.

Michael F.P. Huber is an Austrian composer living in Innsbruck. He studied musicology and composition at the Music School of University of Vienna under Iván Eröd, Kurt Schwertsik, Klaus-Peter Sattler, and Christian Mühlbacher.

Second VSL Joint Award Ceremony: Monday, July 21 2014, 16:30-19:00

The second VSL Joint Award Ceremony will host

FLoC Olympic Games Award Ceremony 2

http://vsl2014.at/olympics

with nine competitions on Answer Set Programming (ASPCOMP), Automatic Theorem Proving (CASC-J7), Hardware Model Checking (HWMCC), OWL Reasoner Evaluation (ORE), Satisfiability Modulo Theories (SMT-COMP), Software Verification (SV-COMP), Syntax-Guided Synthesis (SyGuS-COMP), Synthesis (SYNTCOMP), and Termination (termCOMP)

Lifetime Achievement Award: Werner DePauli-Schimanovich

Lifetime Achievement Award: Zhang Mingyi

EMCL Distinguished Alumni Award

http://www.emcl-study.eu

The ceremony will be followed by a public lecture held by Friedrich Stadler (University of Vienna).

Awards

Lifetime Achievement Award: Werner DePauli-Schimanovich

Werner "Jimmy" DePauli-Schimanovich is being honored for his contributions to Gödel research, for his efforts towards re-establishing Vienna as a center of logic in the second half of the past century, and for extending the outreach of formal logic and logical thinking to other disciplines. The books about Gödel he authored, co-authored, or edited contain precious contributions of historical, philosophical, and mathematical value. His film on Gödel, and related articles and TV testimonials, attracted the general public to Gödel and his work. Moreover, DePauli-Schimanovich has unceasingly and successfully fought to re-establish logic in Vienna. He has inspired and encouraged a large number of students and young researchers, has organised meetings and social gatherings, and has created an intellectual home for scholars of logic. His activities significantly contributed to filling the intellectual vacuum in logic research that had developed in Austria in the years 1938-1945 and well into the postwar period. He was a main initiator and co-founder of the International Kurt Gödel Society. Jimmy's research in logic involved criticism of current axiomatisations of set theory and development of new systems of naïve set theory. In informatics, DePauli-Schimanovich was co-founder and co-organiser of EuroCAST, a conference series on computer-assisted systems theory meeting alternatively in Vienna and Las Palmas, Gran Canaria. Finally, Jimmy has furthered implementation of logical ideas in disparate fields such as mechanical engineering, automated game playing, urban planning, and by inventing a number of logical games.

Lifetime Achievement Award: Zhang Mingyi

Zhang Mingyi is a pioneer in Artificial Intelligence and Knowledge Representation in China. He has built up a school of non-monotonic logic in Guiyang and has fostered the exchange between Chinese and Western scientists. He has contributed a large number of results on various forms of non-monotonic reasoning, including default logic, answer set programming, and belief revision. In particular, as early as 1992, he has provided important characterizations of various forms of default logic that paved the way for clarifying their computational properties and for developing algorithms for default reasoning. Jointly with collaborators, he proposed a characterization of answer sets based on sets of generating rules, and introduced the concept of first-order loop formulas to relate answer set programming to classical logic. Other important results relate to theory revision (for example, the proof of the existence and uniqueness of the finest splitting of Horn formulae) and to normal forms for Gödel logics. Many of Zhang Mingyi's former students have become internationally respected researchers.

EMCL Distinguished Alumni Award

The Free University of Bozen-Bolzano, Technische Universität Dresden, Universidade Nova de Lisboa, Universidad Politécnica de Madrid (until 2010), Technische Universität Wien, and Australia's Information Communications Technology Research Centre of Excellence (since 2007) are jointly running the European Master's Program in Computational Logic (EMCL) since 2004. The program is supported by the European Union within Erasmus Mundus and Erasmus. So far, more than 100 students from 39 different countries have successfully completed the distributed master's program with a double or joint degree.

For the first time, the partner institutions are announcing the EMCL Distinguished Alumni Award for outstanding contributions of EMCL graduates to the field of Computational Logic.

www.emcl-study.eu

IST Austria in Klosterneuburg: das Exzellenzinstitut für Naturwissenschaften

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Dynamische Entwicklung

Niederösterreich hat sich in den letzten 20 Jahren als Standort für Wissenschaft und Forschung etabliert. Das IST Austria liegt im Zentrum der Entwicklungsachse.

Das Institute of Science and Technology Austria (IST Austria) ist Partner des Vienna Summer of Logic 2014. Was heute wie eine Selbstverständlichkeit anmutet, ist das Ergebnis eines bemerkenswerten Aufholprozesses. Ziel dieses Prozesses ist es, Niederösterreich zu einem führenden Standort für Wissenschaft und Forschung zu machen, etwa durch Investition von gut 600 Mio. Euro in die Infrastruktur für Wissenschaft und Forschung in den letzten Jahren.

Die Ergebnisse können sich sehen lassen. So sind heute über 60 Wissenschaftseinrichtungen in Niederösterreich aktiv; die Zahl der Studierenden im Land konnte von 3.000 im Jahr 2000 auf beinahe 19.000 im Jahr 2014 gesteigert werden; die Fachhochschulen mit ihren 2.000 AbsolventInnen pro Jahr bieten heute mehr als 60 Studiengänge an; und die Forschungsquote konnte von 0,95% auf 1,56% des regionalen BIP gesteigert werden.

Besonders prägnant ist diese Entwicklung entlang der Wissenschaftsachse. Am **Institute of Science and Technology Austria** (IST Austria) in Klosterneuburg sollen bis 2026 rund 90 ProfessorInnen mit rund 1.000 WissenschaftlerInnen tätig sein. Die niederösterreichische Landesregierung trägt bis 2026 rund € 500 Mio. für die Infrastruktur, die Gebäude und den Betrieb des IST Austria Campus bei.

Der **Campus Krems** beherbergt unter anderem die Donau-Universität, die IMC Fachhochschule Krems und die Danube Private University. Seit dem Jahr 2000 wurden rund € 100 Mio. in den Standort investiert, an dem derzeit über 8.000 Studierende aus 81 Ländern an der Donau-Universität und 2.500 Studierende an der IMC FH Krems inskribiert sind. Die Karl Landsteiner Privatuniversität bietet als erste tertiäre Bildungseinrichtung Österreichs ein Bologna-konformes, interdisziplinär aufgebautes Studienangebot im Bereich der Medizin und Gesundheitswissenschaften an.

Das **Universitäts- und Forschungszentrum Tulln** mit seinen Außenstellen der Universität für Bodenkultur und des Austrian Institute of Technology (AIT) widmet sich Forschungsarbeiten im Zusammenhang mit natürlichen Ressourcen.

Mit **MedAustron** entsteht in Wiener Neustadt eines der modernsten Zentren für Ionentherapie und Forschung in Europa. Ab 2015 werden die ersten Patienten (jährlich bis zu 1.400) in dieser weltweit einzigartigen Einrichtungen behandelt. Professuren wurden dafür an der Technischen und Medizinischen Universität Wien geschaffen.

Alle weiteren Infos:
http://www.noe.gv.at/Wissenschaft

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NIEDERÖSTERREICH

VSL Keynote Speakers

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Franz Baader

TU Dresden

VSL keynote speaker
Monday, July 21st, 8:45
Session Chair: Thomas Eiter
Location: EI, EI 7 (live)
EI, EI 9 (stream); EI, EI 10 (stream); FH, Hörsaal 1 (stream)

Ontology-Based Monitoring of Dynamic Systems

Abstract

Our understanding of the notion "dynamic system" is a rather broad one: such a system has states, which can change over time. Ontologies are used to describe the states of the system, possibly in an incomplete way. Monitoring is then concerned with deciding whether some run of the system or all of its runs satisfy a certain property, which can be expressed by a formula of an appropriate temporal logic. We consider different instances of this broad framework, which can roughly be classified into two cases. In one instance, the system is assumed to be a black box, whose inner working is not known, but whose states can be (partially) observed during a run of the system. In the second instance, one has (partial) knowledge about the inner working of the system, which provides information on which runs of the system are possible. In this talk, we will review some of our recent research that investigates different instances of this general framework of ontology-based monitoring of dynamic systems. We will also sketch possible extensions towards probabilistic reasoning and the integration of mathematical modelling of dynamical systems.

Biography

Franz Baader is full professor for Theoretical Computer Science at TU Dresden, Germany. 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, nonmonotonic logics) and automated deduction (term rewriting, unification theory, combination of decision procedures). Franz Baader is an ECCAI Fellow since 2004 and a member of the Academia Europea since 2011.

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Edmund M. Clarke

Carnegie Mellon University

VSL keynote speaker
Tuesday, July 22nd, 8:45
Session Chair: Helmut Veith
Location: EI, EI 7 (live)
EI, EI 9 (stream); EI, EI 10 (stream); FH, Hörsaal 1 (stream)

Verification of Computer Systems with Model Checking

Abstract

Model Checking is an automatic verification technique for large state transition systems. The technique has been used successfully to debug complex computer hardware and communication protocols. Now, it is beginning to be used for complex hybrid (continuous/discrete) systems as well. The major disadvantage of the technique is a phenomenon called the State Explosion Problem. This problem is impossible to avoid in worst case. However, by using sophisticated data structures and clever search algorithms, it is now possible to verify hybrid systems with astronomical numbers of states.

Biography

Edmund M. Clarke is the FORE Systems University Professor of Computer Science at Carnegie Mellon University. He received his Ph.D. from Cornell University and taught at Duke and Harvard Universities before joining CMU in 1982. His research interests include hardware and software verification and automatic theorem proving. In particular, his research group developed Symbolic Model Checking using BDDs, Bounded Model Checking using fast CNF satisfiability solvers, and pioneered the use of CounterExample-Guided-Abstraction-Refinement (CEGAR). He is a co-founder of the conference on Computer Aided Verification (CAV). He has received numerous awards for his contributions to formal verification of hardware and software correctness, including the IEEE Goode Award, the ACM Kanellakis Award, the ACM Turing Award, and the CADE Herbrand Award. Dr. Clarke is a member of the National Academy of Engineering and the American Academy of Arts and Sciences. Most recently he received the 2014 Franklin Institute Bower Award and Prize for Achievement in Science for verification of computer systems.

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Christos Papadimitriou

University of California, Berkeley

VSL keynote speaker
Monday, July 14th, 9:15
Session Chair: Georg Gottlob
Location: EI, EI 7 (live)
EI, EI 9 (stream); EI, EI 10 (stream); FH, Hörsaal 1 (stream)

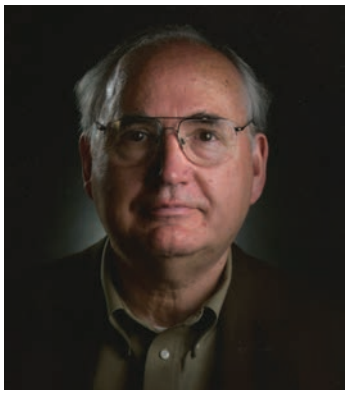
Computational Ideas and the Theory of Evolution

Abstract

Covertly computational insights have influenced the Theory of Evolution from the very start. I shall discuss recent work on some central problems in Evolution that was inspired and informed by computational ideas. Considerations about the performance of genetic algorithms led to a novel theory of the role of sex in Evolution based on the concept of mixability, the population genetic equations describing the evolution of a species can be reinterpreted as a repeated game between genes played through the multiplicative update algorithm, while a theorem on satisfiability can shed light on the emergence of complex adaptations.

Biography

Christos H. Papadimitriou is the C. Lester Hogan Professor of Computer Science at UC Berkeley. Before joining Berkeley in 1996 he taught at Harvard, MIT, Athens Polytechnic, Stanford, and UCSD. He has written five textbooks and many articles on algorithms and complexity, and their applications to optimization, databases, AI, economics, and the Internet. He holds a PhD from Princeton, and seven honorary doctorates. He is a member of the Academy of Sciences of the US, the American Academy of Arts and Sciences, and the National Academy of Engineering, and a fellow of the ACM. He has also written the novels “Turing”, “Logicomix” (with Apostolos Doxiadis) and “Independence” (in Greek).



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Dana Scott

Carnegie Mellon University

VSL opening speaker
Monday, July 14th, 8:45
Session Chair: Agata Ciabattoni
Location: EI, EI 7 (live)
EI, EI 9 (stream); EI, EI 10 (stream); FH, Hörsaal 1 (stream)

A word of welcome

It is both a privilege and an honor to be asked to open The Vienna Summer of Logic (VSL) 2014. The Kurt Gödel Society and many committees have worked over a long period of time to plan and organize a wide variety of conferences, workshops, and events. The conferences participating in VSL will bring together many researchers concerned with mathematical logic and applications to computer science and artificial intelligence. We have to thank Moshe Vardi who several years ago proposed the advantages of colocation so that participants can learn about the new developments that interest them most. This year Vienna gives us a special chance not only to look to the future, but also to explore the rich art, culture, and history of the past.

Dana S. Scott

University Professor, Emeritus
Carnegie Mellon University

Visiting Scholar in Mathematics
University of California, Berkeley

Biography

Dana S. Scott received a B.A. degree in mathematics from the University of California, Berkeley, in 1954 and his PhD from Princeton University in 1958. He taught at various universities, including the University of Chicago, University of California, Berkeley, Stanford University and Oxford University. In 1981, he became University Professor of Computer Science, Mathematical Logic and Philosophy at Carnegie Mellon University. Together with Michael Rabin, Dana Scott received the 1976 Association for Computing Machinery A.M. Turing Award.

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Alex Wilkie

University of Manchester

VSL keynote speaker
Wednesday, July 16th, 8:45
Session Chair: Matthias Baaz
Location: EI, EI 7 (live)
EI, EI 9 (stream); EI, EI 10 (stream); FH, Hörsaal 1 (stream)

The theory and applications of o-minimal structures

Abstract

This is a talk in the branch of logic known as model theory, more precisely, in o-minimality. The first example of an o-minimal structure is the ordered algebraic structure on the set of real numbers and I shall focus on expansions of this structure. Being o-minimal means that the first order definable sets in the structure do not exhibit wild phenomena (this will be made precise). After discussing some basic theory of such structures I shall present some recent applications to diophantine geometry.

Biography

Alex Wilkie, FRS, is a mathematician known for his contributions to Model theory and logic. Previously professor of mathematics at the University of Oxford, he was appointed to the Fielden Chair of Pure Mathematics at the University of Manchester in 2007. Wilkie gained his PhD from the University of London in 1973 under the supervision of Wilfrid Hodges with a dissertation entitled Models of Number Theory. He was elected a Fellow of the Royal Society in 2001.

Invited Talks

The invited talks take place in the rooms of their respective conferences.

Monday, July 14

Time	*Speaker*	*Talk title*	*Conference*
10:45	Assia Mahboubi	Computer-Checked Mathematics: a Formal Proof of the Odd Order Theorem	**CSL-LICS**
11:00	Krzysztof Apt	A Tutorial on Strategic and Extensive Games 1	**LC**
12:00	Noam Greenberg	Applications of admissible computability	**LC**
14:30	Jasmin Fisher	Understanding Biology through Logic	**CSL-LICS**
14:30	Nobuko Yoshida	Process Types as a Descriptive Tool for Distributed Protocols	**RTA-TLCA**
15:00	Anna Slobodova	Microprocessor Verification - Another Piece of the Microprocessor Verification Puzzle	**ITP**

Tuesday, July 15

Time	*Speaker*	*Talk title*	*Conference*
9:15	Mariya Soskova	Definability, automorphisms and enumeration degrees	**LC**
11:00	Krzysztof Apt	A Tutorial on Strategic and Extensive Games 2	**LC**
14:30	Jakob Nordström	A (Biased) Proof Complexity Survey for SAT Practitioners	**SAT**
14:30	Nicola Gambino	A unified approach to Univalent Foundations and Homotopical Algebra	**RTA-TLCA**
15:00	Rod Chapman	Are We There Yet? 20 Years of Industrial Theorem Proving with SPARK.	**ITP**
16:00	Patrick Cousot	Abstract Interpretation, Principles and Applications	**CSL-LICS**

Wednesday, July 16

Time	*Speaker*	*Talk title*	*Conference*
10:45	Alasdair Urquhart	Relevance Logic: Problems Open and Closed	**LATD**
11:00	Krzysztof Apt	A Tutorial on Strategic and Extensive Games 3	**LC**
11:45	Vincenzo Marra	A tutorial on Lukasiewicz logic	**LATD**
12:00	Paddy Blanchette	The Birth of Semantic Entailment	**LC**
14:30	Leonardo de Moura	A model-constructing satisfiability calculus	**SAT**
14:30	Manfred Schmidt-Schauß	Concurrent Programming Languages and Methods for Semantic Analyses	**RTA-TLCA**
15:00	Peter Sewell	Retrofitting Rigour	**ITP**

Thursday, July 17

Time	*Speaker*	*Talk title*	*Conference*
9:15	Ben Miller	Definable cardinals just beyond R / Q	**LC**
10:45	Michael Benedikt	New perspectives on query reformulation	**DL**
10:45	Dale Miller	Combining Intuitionistic and Classical Logic: a proof system and semantics	**LATD**
11:00	Alexandre Miquel	A tutorial on classical realizability and forcing 1	**LC**
11:45	Vincenzo Marra	A tutorial on Łukasiewicz logic	**LATD**
12:00	Vera Fischer	Cardinal invariants and template iterations	**LC**
14:30	Hans Rott	Four Floors for the Theory of Theory Change	**NMR**
14:30	Kirsten Eisenträger	Generalizations of Hilbert's Tenth Problem	**LC**

Friday, July 18

Time	*Speaker*	*Talk title*	*Conference*
08:45 - 12:15	David Monniaux	How do we get inductive invariants?	**CAV (Tutorials)**
8:45	Patrick Blackburn	Fragments of Logic, Language, and Computation	**DL, NMR**
9:15	Christel Baier	Trade-off Analysis Meets Probabilistic Model Checking	**CSL-LICS**
9:15	Mark Reynolds	Synthesis for monadic logic over the reals	**LC**
10:45	Melvin Fitting	The Range of Realization: Which modal logics have explicit counterparts	**LATD**
11:00	Alexandre Miquel	A tutorial on classical realizability and forcing 2	**LC**
11:45	Franz Baader	A tutorial on Fuzzy Description Logics	**LATD**
12:00	Andrés Cordón Franco	On local induction schemes	**LC**
14:30	George Metcalfe	First-Order Logics and Truth Degrees	**LATD**
14:30 - 18:00	Fabio Somenzi	Hardware Model Checking	**CAV (Tutorials)**

Saturday, July 19

Time	*Speaker*	*Talk title*	*Conference*
8:30	Dana Scott	Geometry without points	**LATD**
9:00	Frank Piessens	Towards a Zero-Software Trusted Computing Base for Extensible Systems	**CSF**
10:45	Silvio Ghilardi	Step frames analysis in single- and multi-conclusion calculi	**LATD**
10:45	Alon Y. Halevy	Structured Data on the Web (or, a Personal Journey Away From and Back To Ontologies)	**DL**
10:45	Rajeev Goré	An overview of tableaux methods for propositional fixpoint logics	**IJCAR**
11:00	Alexandre Miquel	A tutorial on classical realizability and forcing 3	**LC**
11:45	Franz Baader	A tutorial on Fuzzy Description Logics	**LATD**

Time	Speaker	Talk title	Conference
12:00	Andrej Bauer	Reductions in computability theory from a constructive point of view	LC
14:00	Albert Visser	On a theorem of McAloon	LC
14:30	Philippe Besnard	Revisiting Postulates for Inconsistency Measures	NMR
16:30	Leszek Kołodziejczyk	The problem of a model without collection and without exponentiation	LC
17:10	Erik Winfree	Designing and verifying molecular circuits and systems made of DNA	CAV
17:30	Julia Knight	Gödel lecture: Computable structure theory and formulas of special forms	LC

Sunday, July 20

Time	Speaker	Talk title	Conference
17:10	Rance Cleaveland	Automated Testing	CAV

Monday, July 21

Time	Speaker	Talk title	Conference
9:00	Gilles Barthe	New Directions in Computer-Aided Cryptography	CSF

Tuesday, July 22

Time	Speaker	Talk title	Conference
9:00	Alessandro Acquisti	Privacy in the Age of Augmented Reality	CSF
10:45	Ken McMillan	Structured Search and Learning	IJCAR

Wednesday, July 23

Time	Speaker	Talk title	Conference
9:00	Tony Cohn	Knowledge Representation meets Computer Vision: from pixels to symbolic activity descriptions	KR
18:30	Sheila McIlraith	Situation Calculus: The last 15 years	KR

Thursday, July 24

Time	Speaker	Talk title	Conference
9:00	Georg Gottlob	Datalog +/-: Questions and Answers	KR

Panels

The Place of Logic in Computer Science Education

Tuesday, July 15

14:30-16:00

Location: Prechtlsaal (Main Building)

Participants:

Byron Cook, *Microsoft Research*
Alexander Leitsch, *Vienna University of Technology*
Prakash Panangaden, *McGill University*
Nicole Schweikardt, *Goethe-Universität Frankfurt am Main*

Moderators:

Helmut Veith, Richard Zach

Abstract: Logic has been called the "calculus of computer science" - and yet, while any physics student is required to take several semesters of calculus, the same cannot be said about logic and students of computer science. Despite the great and burgeoning activity in logic-related topics in computer science, there has been very little interest, in North America at least, in developing a strong logic component in the undergraduate curriculum. Meanwhile, in other parts of the world, departments have set up specialized degree programs on logical methods and CS. This special session, organized under the auspices of the ASL's Committee on Logic Education, aims to explore the role of logic in the computer science curriculum. How are computer scientists trained in logic, if at all? What regional differences are there, and why? Is a greater emphasis on logic in the computer science undergraduate curriculum warranted, both from the point of view of training for research in CS and from the point of view of training for industry jobs? What should an ideal "Logic for Computer Science" course look like?

Byron Cook believes that, in the rush to create engineers and scientists, we have lost sight of the fact that an education should be broad and place emphasis on principles rather than specific skills such as Javascript. Logic is the perfect topic in this setting, as it has application in both humanities and science, and fosters a discussion about mechanics while not requiring a significant amount of technical overhead.

The Association for Computing Machinery has just chartered a new Special Interest Group on Logic and Computation (SIGLOG). Education is one of the prime concerns of this new SIG and one of the activities on the SIG's education committee will be to advocate for a greater presence of logic in the curriculum. Prakash Panangaden discusses the aims of the new SIG with particular emphasis on its educational mission.

Nicole Schweikardt will report on experiences with designing an undergraduate introductory course on logic in computer science at Goethe-University Frankfurt.

The University of Technology Vienna participates in a European Masters program in computational logic and has just started a doctoral program in Logical Methods in Computer Science. Alexander Leitsch describes these initiatives and considers lessons other departments can draw from the Vienna experience.

Presentations will be followed by a panel discussion. Materials will be available on the Committee on Logic Education website at

http://ucalgary.ca/aslcle

Publication Models in Computing Research: Is a Change Needed? Are We Ready for a Change?

Thursday, July 17

FLoC Panel 1

8:45-10:15

Location: FH, Hörsaal 1

Participants:

Nina Amla, *National Science Foundation*
Georg Gottlob, *Oxford University, Vienna University of Technology*
Falk Reckling, *Austrian Science Fund*
Sweitze Roffel, *Elsevier*
Andrei Voronkov, *University of Manchester*

Moderator:

Moshe Vardi, *Rice University*

Abstract: Over the last few years, our community has started a collective conversation on several topics related to our publication culture: our emphasis on conference publishing; our large number of specialty conferences; concerns that we have created a culture of hypercritical reviewing, which stifle rather than encourage innovative research; concerns that tenure and promotion practice encourage incremental short-term research; the tension between the ideal of open access and the reality of reader-pay publishing; and the role of social media in scholarly publishing. While computing research has been phenomenally successful, there is a feeling that our publication models are quite often obstacles. Yet, there is no agreement on whether our publication models need to be radically changed or fine tuned, and there is no agreement on how such change may occur. This panel is aimed at furthering the conversation on this topic, with the hope of moving us closer to an agreement.

Computational Complexity and Logic: Theory vs. Experiments

Saturday, July 19

FLoC Panel 2

8:45-10:15

Location: FH, Hörsaal 1

Participants:

Fahiem Bacchus, *University of Toronto*
Armin Biere, *JKU Linz*
Byron Cook, *Microsoft Research*
Joel Ouaknine, *Oxford University*
Karem Sakallah, *University of Michigan*
Mirek Truszczynski, *University of Kentucky*

Moderator:

Helmut Veith, *Vienna University of Technology*

Abstract: The success of SAT solving, Answer Set programming, and Model Checking has changed our view of computational complexity and (un) decidability. Program committees are increasingly discussing the value of theoretical and empirical complexity evaluations. What is the intellectual value of a completeness result? Which standards do we apply to reproducibility of experiments? What is the role of competitions? What are the minimal requirements for an experimental proof of concept?

FLoC14 Interconference Topics

The FLoC14 Interconference Topics on Security and SAT/SMT/QBF are a FLoC14 initiative by CAV, CSF, and IJCAR to foster exchange and discussion between conferences. The Interconference Topics consist of sessions from the participating conferences with a joint thematic focus. They provide a special opportunity for FLoC participants with particular interest in these topics.

The FLoC14 Interconference Topic on Security combines contributions from CAV and CSF on access control policies, information flow and noninterference, privacy, program verification and software security, and forensics.

The FLoC14 Interconference Topic on SAT/SMT/QBF combines contributions from CAV and IJCAR on efficient decision procedures for satisfiability of propositional logic formulas, for Satisfiability Modulo Theories and for Quantified Boolean Formulas.

FLOC14 INTERCONFERENCE TOPIC ON SAT/SMT/QBF

Saturday, July 19th

Time	*Speakers*	*Title*	*Conference session*	*Location*
14:30-15:00	Ori Lava and Yoni Zohar	SAT-based Decision Procedure for Analytic Pure Sequent Calculi	IJCAR: SAT&QBF	FH, Hörsaal 5
15:00-15:30	Marijn Heule, Martina Seidl and Armin Biere	Unified Proof System for QBF Preprocessing	IJCAR: SAT&QBF	FH, Hörsaal 5
15:30-16:00	Carlos Ansótegui, Maria Luisa Bonet, Jesus Giráldez-Cru and Jordi Levy	The Fractal Dimension of SAT Formulas	IJCAR: SAT&QBF	FH, Hörsaal 5
16:30-17:00	Paula Chocron, Pascal Fontaine and Christophe Ringeissen	A Gentle Non-Disjoint Combination of Satisfiability Procedures	IJCAR: SMT	FH, Hörsaal 5

Monday, July 21st

Time	*Speakers*	*Title*	*Conference session*	*Location*
14:30-15:00	Aleksandar Zeljić, Christoph M. Wintersteiger and Philipp Ruemmer	Approximations for Model Construction	IJCAR: SMT&SAT	FH, Hörsaal 5
15:00-15:20	Rüdiger Ehlers and Martin Lange	A Tool that Incrementally Approximates Finite Satisfiability in Full Interval Temporal Logic	IJCAR: SMT&SAT	FH, Hörsaal 5
15:20-15:40	Aaron Stump, Geoff Sutcliffe and Cesare Tinelli	StarExec: a Cross-Community Infrastructure for Logic Solving	IJCAR: SMT&SAT	FH, Hörsaal 5
15:40-16:00	Bruno Woltzenlogel Paleo, Joseph Boudou and Andreas Fellner	Skeptik [System Description]	IJCAR: SMT&SAT	FH, Hörsaal 5

Tuesday, July 22nd

Time	Speakers	Title	Conference session	Location
10:45-11:05	Margus Veanes, Nikolaj Bjorner, Lev Nachmanson and Sergey Bereg	Monadic Decomposition	CAV: SAT/SMT/QBF	FH, Hörsaal 1
11:05-11:25	Tianyi Liang, Andrew Reynolds, Cesare Tinelli, Clark Barrett and Morgan Deters	A DPLL(T) Theory Solver for a Theory of Strings and Regular Expressions	CAV: SAT/SMT/QBF	FH, Hörsaal 1
11:25-11:45	Alexander Nadel	Bit-Vector Rewriting with Automatic Rule Generation	CAV: SAT/SMT/QBF	FH, Hörsaal 1
11:45-12:05	Liana Hadarean, Clark Barrett, Dejan Jovanović, Cesare Tinelli and Kshitij Bansal	A Tale of Two Solver: Eager and Lazy Approaches to Bit-vectors	CAV: SAT/SMT/QBF	FH, Hörsaal 1
12:05-12:25	Andrei Voronkov	AVATAR: The New Architecture for First-Order Theorem Provers	CAV: SAT/SMT/QBF	FH, Hörsaal 1
12:25-12:45	Ruzica Piskac, Thomas Wies and Damien Zufferey	Automating Separation Logic with Trees and Data	CAV: SAT/SMT/QBF	FH, Hörsaal 1
12:45-12:55	Ashish Tiwari and Patrick Lincoln	A Nonlinear Real Arithmetic Fragment	CAV: SAT/SMT/QBF	FH, Hörsaal 1
12:55-13:05	Bruno Dutertre	Yices 2.2	CAV: SAT/SMT/QBF	FH, Hörsaal 1

FLOC14 INTERCONFERENCE TOPIC ON SECURITY

Saturday, July 19th

Time	Speakers	Title	Conference session	Location
10:45-11:15	Christos Dimoulas, Scott Moore, Aslan Askarov and Stephen Chong	Declarative Policies for Capability Control	CSF: Security "Software Security"	FH, Hörsaal 6
11:15-11:45	Joshua Kroll, Gordon Stewart and Andrew Appel	Portable Software Fault Isolation	CSF: Security "Software Security"	FH, Hörsaal 6
11:45-12:15	Radha Jagadeesan, Cm Lubinski, Corin Pitcher, James Riely and Charles Winebrinner.	Certificates for Verifiable Forensics	CSF: Security "Software Security"	FH, Hörsaal 6
12:15-12:45	Andrey Chudnov, George Kuan and David Naumann	Information flow monitoring as abstract interpretation for relational logic	CSF: Security "Software Security"	FH, Hörsaal 6

Time	*Speakers*	*Title*	*Conference session*	*Location*
14:30-14:50	Hassan Eldib and Chao Wang	Synthesis of Masking Countermeasures against Side Channel Attacks	CAV: Security	FH, Hörsaal 1
14:50-15:10	Omar Chowdhury, Limin Jia, Deepak Garg and Anupam Datta	Temporal Mode-Checking for Runtime Monitoring of Privacy Policies	CAV: Security	FH, Hörsaal 1
15:10-15:30	Parosh Aziz Abdulla, Mohamed Faouzi Atig, Yu-Fang Chen,Lukas Holik, Ahmed Rezine, Philipp Reummer and Jari Stenman	Program Verification through String Rewriting	CAV: Security	FH, Hörsaal 1
15:30-15:50	Sudeep Kanav, Peter Lammich and Andrei Popescu	A Conference Management System with Verified Document Confidentiality	CAV: Security	FH, Hörsaal 1
15:50-16:00	Anna Lisa Ferrara, P. Madhusudan, Truc L. Nguyen and Gennaro Parlato	VAC - Verifier of Administrative Role-based Access Control Policies	CAV: Security	FH, Hörsaal 1
16:30-17:30	Frank Piessens	Towards a Zero-Software Trusted Computing Base for Extensible Systems	CSF Invited Talk	FH, Hörsaal 6
17:30-18:00	Pablo Buiras, Deian Stefan and Alejandro Russo	On Dynamic Flow-sensitive Floating Label Systems	CSF: Security “Information Flow 1”	FH, Hörsaal 6
18:00-18:30	Heiko Mantel, Matthias Perner and Jens Sauer	Noninterference under Weak Memory Models	CSF: Security “Information Flow 1”	FH, Hörsaal 6

Federated Logic Conference Plenary Speakers

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Véronique Cortier

(CNRS, Loria)

Sunday, July 20th, 8:45-10:15
Session Chair: Andrei Voronkov
Location: FH, Hörsaal 1

Electronic voting: how logic can help?

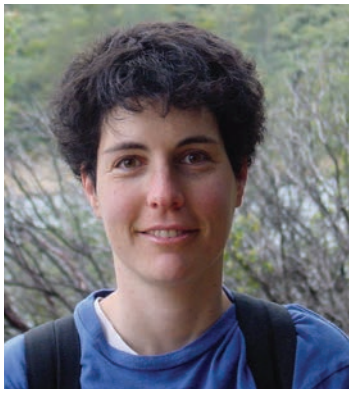
Abstract

Electronic voting should offer at least the same guarantees than traditional paper-based voting systems. In order to achieve this, electronic voting protocols make use of cryptographic primitives, as in the more traditional case of authentication or key exchange protocols. All these protocols are notoriously difficult to design and flaws may be found years after their first release. Formal models, such as process algebra, Horn clauses, or constraint systems, have been successfully applied to automatically analyze traditional protocols and discover flaws. Electronic voting protocols however significantly increase the difficulty of the analysis task. Indeed, they involve for example new and sophisticated cryptographic primitives, new dedicated security properties, and new execution structures.

After an introduction to electronic voting, we will describe the current techniques for e-voting protocols analysis and review the key challenges towards a fully automated verification.

Biography

Véronique Cortier is research director at CNRS, Loria, France. She has been granted two awards in 2004 for her PhD and she has been recently awarded an ERC starting grant. She is working on the automatic verification of security protocols, using formal models such as first order logic or rewriting.



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Orna Kupferman

(Hebrew University)

Tuesday, July 15th, 8:45-10:15
Session Chair: Moshe Vardi
Location: FH, Hörsaal 1

From Reachability to Temporal Specifications in Game Theory

Abstract

Multi-agents games are extensively used for modelling settings in which different entities share resources. For example, the setting in which entities need to route messages in a network is modelled by network-formation games: the network is modelled by a graph, and each agent has to select a path satisfying his reachability objective. In practice, the objectives of the entities are often more involved than reachability. The need to specify and reason about rich specifications has been extensively studied in the context of verification and synthesis of reactive systems. The talk describes a lifting of ideas from formal methods to multi-agent games. For example, in network-formation games with regular objectives, the edges of the graph are labeled by alphabet letters and the objective of each player is a regular language over the alphabet of labels. Thus, beyond reachability, a player may restrict attention to paths that satisfy certain properties, referring, for example, to the providers of the traversed edges, the actions associated with them, their quality of service, security, etc.

The talk assumes no previous knowledge in game theory. We will introduce the basic concepts and problems, describe how their extension to games with more expressive specification of objectives poses new challenges, and study the resulting games.

Joint work with Guy Avni and Tami Tamir.

Biography

Orna Kupferman is a computer science professor at The Hebrew University. Orna's research focuses on the theoretical aspects of system specification, verification, and synthesis.

Workshops

FLoC Workshops

Block 1, July 12–13

2FC	Two Faces of Complexity 2014
ACL2	12th International Workshop on the ACL2 Theorem Prover and its Applications
CL&C	Fifth International Workshop on Classical Logic and Computation
DCM	10th International Workshop on Developments in Computational Models
DTP	Dependently-Typed Programming
FWFM	2nd International Workshop Fun With Formal Methods
GSB	Workshop on Gentzen Systems and Beyond 3
HOL	2014 International Workshop on the HOL Theorem Proving System
HOR	Higher Order Rewriting
IFIP-WG16	Annual Meeting of the IFIP Working Group 1.6 (Term Rewriting)
Isabelle	Isabelle Workshop 2014
IWC	3rd International Workshop on Confluence
LCC	Workshop on Logic and Computational Complexity
LINEARITY	3rd International Workshop on Linearity
LOLA	5th Workshop on Syntax and Semantics of Low-Level Languages
LSB	5th International Workshop on Logic and Systems Biology
ORE	The 3rd OWL Reasoner Evaluation Workshop
PC	FLoC Workshop on Proof Complexity
POS	Fifth Pragmatics of SAT workshop
QBF	Second International Workshop on Quantified Boolean Formulas
SD	3rd Workshop on Structures and Deduction
TERMGRAPH	8th International Workshop on Computing with Terms and Graphs
UNIF	The 28th International Workshop on Unification
WIR	Workshop on Infinitary Rewriting
WPTE	Workshop on Rewriting Techniques for Program Transformations and Evaluation

Block 2, July 17–18

ADDCT	Automated Deduction: Decidability, Complexity, Tractability
AISS	Algorithmics of Infinite State Systems 2014
APPA	All about Proofs, Proofs for All
ASA	7th International Workshop on Analysis of Security APIs
CHR	11th International Workshop on Constraint Handling Rules
CICLOPS-WLPE	International Joint Workshop on Implementation of Constraint and Logic Programming Systems and Logic-based Methods in Programming Environments 2014
Coq	The 6th Coq Workshop
CSPSAT	Fourth International Workshop on the Cross-Fertilization Between CSP and SAT, in conjunction with SAT 2014
EC2	7th International Workshop on Exploiting Concurrency Efficiently and Correctly

Block 2, July 17–18 ctd.

FCS-FCC	Joint Workshop on Foundations of Computer Security and Formal and Computational Cryptography
HCVS	Workshop on Horn Clauses for Verification and Synthesis
HOPA	Higher Order Program Analysis
iPRA	Interpolation: From Proofs to Applications
ITRS	7th Workshop on Intersection Types and Related Systems
LaSh	4th International Workshop on Logic and Search
LFMTP	9th International Workshop on Logical Frameworks and Meta-languages: Theory and Practice
NLCS	Second Workshop on Natural Language and Computer Science
NLSR	Natural Language Services for Reasoners
NSV	7th International Workshop on Numerical Software Verification
ParSearchOpt	Parallel Methods for Search & Optimization
PAS	Third International Seminar on Program Verification, Automated Debugging and Symbolic Computation
PCCR	2nd Workshop on the Parameterized Complexity of Computational Reasoning
PLP	Workshop on Probabilistic Logic Programming
PSC	Proof, Structure and Computation
QED	Twenty Years of the QED Manifesto
QUANTIFY	First International Workshop on Quantification
RCRA	21st RCRA International Workshop on „Experimental Evaluation of Algorithms for solving problems with combinatorial explosion“
REORDER	Third International Workshop on Memory Consistency Models
SMT	12th International Workshop on Satisfiability Modulo Theories
STAST	4th International Workshop on Socio-Technical Aspects in Security and Trust
UITP	User Interfaces for Theorem Provers
VEMDP	International Workshop on Verification of Engineered Molecular Devices and Programs 2014
VPT	Second International Workshop on Verification and Program Transformation
VSTTE	Working Conference on Verified Software: Theories, Tools, and Experiments
WST	14th International Workshop on Termination
WWV	10th International Workshop on Automated Specification and Verification of Web Systems

Block 3, July 23–24

ARQNL	Automated Reasoning in Quantified Non-Classical Logics
ARW-DT	Joint Automated Reasoning Workshop and Deduktionstreffen
ASPOCP	7th Workshop on Answer Set Programming and Other Computing Paradigms
FRIDA	Workshop on Formal Reasoning in Distributed Algorithms
HSB	3rd International Workshop on Hybrid Systems Biology
PAAR	4th Workshop on Practical Aspects of Automated Reasoning
PRUV	First Workshop on Logics for Reasoning about Preferences, Uncertainty, and Vagueness

Block 3, July 23–24 ctd.	
RS	Reactive Systems: Directions in Development and Analysis
SYNT	3rd Workshop on Synthesis
Vampire	The Vampire Workshop
VERIFY	8th International Verification Workshop
VeriSure	Second VeriSure Workshop
WING	5th International Workshop on Invariant Generation

Logic in AI Workshops

July 17-20	
DL	27th International Workshop on Description Logics
July 17-19	
NMR	15th International Workshop on Non-Monotonic Reasoning
July 21	
KR4HC	International Workshop on Knowledge Representation for Health Care 2014

Mathematical Logic Workshops

July 22-23	
GeTFun 2.0	Compositional Meaning in Logic
July 9-11	
INFINITY	The Infinity Workshop
July 15	
LG	Workshop on Logic and Games
July 20	
NCPROOFS	Nonclassical Proofs: Theory, Applications and Tools

Useful Information

Phone Numbers

International Emergency Number
112

Police
133

Medical Emergencies
144

Fire
122

Taxi Services

+43 1 40100

+43 1 31300

+43 1 60160

Pharmacies (Apotheken) close to the conference venues

Apotheke zum Einhorn
Margaretenstraße 31, 1040 Vienna

Paulaner-Apotheke
Wiedner Hauptstraße 14, 1040 Vienna

Apotheke zum heiligen Geist
Operngasse 16, 1010 Vienna

Schutzengel-Apotheke
Favoritenstraße 11, 1040 Vienna

Opern-Apotheke
Kärntner Straße 55, 1010 Vienna

Belvedere-Apotheke
Prinz-Eugen-Straße 24, 1040 Vienna

You can check which pharmacies are open on a given night at
www.apothekenindex.at

Internet Access

Eduroam

Eduroam stands for an international project, which makes the access to the WiFi infrastructure of external educational institutions available to clients using the credentials of their home institution. You can use this if your home institution also participates. If this is the case, you have to register to use eduroam at your home institution before you arrive. VSL encourages you to use this service.

Setup instructions: *http://www.zid.tuwien.ac.at/en/tunet_the_network_of_the_tu_vienna/wlan/eduroam/*

SSID: eduroam
Login-Authentication: 802.1x exclusively
Encoding: 802.1x, WPA2/AES or WPA/TKIP, PEAP (MSCHAPv2), TTLS
Username: Your eduroam username
Password: Your eduroam password

During the use of eduroam at the Vienna University of Technology, the Acceptable Use Policy for the Services of TUNET applies (see further below).

TUNET WiFi Service

If you do not have an "eduroam" account, this access should be used as it is encrypted. Please ask for an account at the registration desk.

SSID: tunet
Account: You can get your username and password at the registration desk

During the use of TUNET at the Vienna University of Technology, the Acceptable Use Policy for the Services of TUNET applies as well (see further below).

Acceptable Use Policy for the Services of TUNET

Preamble

This Acceptable Use Policy is a usage regulation in terms of chapter 3.3(4) of the EDV-Ordnung (EDP Use Policy) for the Vienna University of Technology (ratified by the Academic Senate on January 21, 1991).

TUNET is the data communication infra-structure at the Vienna University of Technology, Austria. TUNET serves the objectives of the Vienna University of Technology as defined in the Austrian University Organization Act (Universitätsorganisationsgesetz, UOG) and the university's future statute, in particular research and education.

Definitions

The following definitions apply to the terms used in this document:

TU-Wien

denotes the Vienna University of Technology with its organizational units, affiliated research institutes and inter-university institutions.

EDV-Zentrum (Computer Center)

is the operator of the network-, communications- and computer infra-structure for information- and data-processing. In UOG 1993 the term Zentraler Informatikdienst supersedes the term EDV-Zentrum.

Service

includes any service provided or distributed by the EDV-Zentrum.

Use

signifies the utilization of services provided or distributed by the EDV-Zentrum, of communication facilities (e.g. lines, equipment) operated, rented or owned by the EDV-Zentrum, of software operated or maintained by the EDV-Zentrum and of all information made available.

User

refers to an end-user.

Messages (Nachrichten)

is used in terms of the Austrian Telecommunications Act (Fernmeldegesetz, FG) 1993, §2(1), i.e. information destined for humans or machines. Messages include information of any kind, like characters, signals, text, graphics or sound-waves.

1. Acceptable Use

1.1 If a use is consistent with the objectives of TU-Wien the activities necessary for that use are considered acceptable. Thus, for instance, the administrative traffic related to the management of the infra-structure needed for education and research is acceptable.

1.2 The EDV-Zentrum decides, if necessary, whether a particular use is not consistent with the objectives of TU-Wien. Court of second instance is the Academic Senate (according to UOG 1975) or the Rector (according to UOG 1993).

1.3 Use by for-profit institutions within the limits of a research project of TU-Wien or for maintenance activities for TU-Wien is acceptable.

2. Unacceptable Use

Examples for unacceptable use are:

2.1 Use for commercial purposes by for-profit institutions is subject to authorization.

2.2 Excessive use for private purposes or personal business is not acceptable.

2.3 Use is not acceptable, if it hinders other users or service providers or if it interferes with the proper functioning of the services of TUNET or its partner networks.

2.4 Use aiming at the pursuit of an illegal activity or at the acquirement of unauthorized access to systems, software, services or information is not acceptable.

2.5 TUNET and its services must not be used in transit between third-party networks unless written authorization has been granted by the EDV-Zentrum.

2.6 Any transmission of messages offending public order, security or morals, or violating applicable law (FG 1993, §16(2) 1) is not acceptable.

2.7 Use that causes severe annoyance or intimidation of other users (FG 1993, §16(2) 2) is not acceptable.

2.8 Commercial advertising is forbidden. Discussion of a product's advantages and disadvantages by users is acceptable. Vendors may respond to questions about their products as long as the responses are not in the nature of advertising.

3. Responsibilities of the User

3.1 If a user resorts to a service of TUNET in order to gain access to a third-party network or service, then the user must also comply to the regulations of that network and any intermediate network.

3.2 A user may be held responsible and made liable for all damage caused to TUNET, its services or those of third parties in consequence of his use. The EDV-Zentrum reserves the right to interrupt connection to a user or a user's institution in case that unacceptable use is detected.

3.3 The user commits to cooperate with the EDV-Zentrum and organizations collaborating with the EDV-Zentrum in investigating incidents of unacceptable use or damage.

3.4 The user shall promote efficient use in order to minimize and possibly avoid congestion of TUNET and its services.

3.5 The user shall not perform any manipulations of TUNET and its equipment.

3.6 In order to enable proper functioning of a device connected to TUNET, net-relevant data of the device must be registered at the EDV-Zentrum prior to the connection. Network names, addresses and authorizations necessary for the operation are assigned by the EDV-Zentrum.

3.7 Maintenance and installation of hardware or software in the liability of a user that might affect the operation of the network are allowed only at specific hours announced by the EDV-Zentrum.

3.8 The user himself is responsible for the financing, installation and regular maintenance of all components connected to the TUNET wall-socket (interface, software, cable, computer).

4. Responsibilities of the EDV-Zentrum

4.1 The EDV-Zentrum, within the limits of its financial and personnel possibilities, strives for the best possible quality of the services offered.

4.2 The EDV-Zentrum explicitly denies all liability for direct or indirect damage.

In case of contradiction between different language versions of this document, only the German version is relevant.

Adopted unanimously by the EDV-Benutzerbeirat on November 7, 1994.

Ratified by the Academic Senate of the Vienna University of Technology on December 12, 1994.

Free WiFi in the city of Vienna

An overview is available here:

http://www.wien.info/en/travel-info/faqs/wlan

About Vienna

The venues of the Vienna Summer of Logic are within walking distance of Hofburg Palace (the former imperial residence), important music venues including the Vienna State Opera and the Musikverein (home of the Vienna Philharmonic Orchestra – from where the New Year's Concert is annually broadcasted around the globe), beautiful churches such as the splendid Baroque Karlskirche (St. Charles' Church) and Stephansdom (St. Stephen's Cathedral), which is located at the very city center. It is also close to major museums including the art nouveau Secession, the Albertina Museum, the Museum of Fine Arts (Kunsthistorisches Museum), the Museum of Natural History (Naturhistorisches Museum), the newly built Museumsquartier hosting modern art, and the Belvedere (a complex of two Baroque palaces housing an art museum), as well as Europe's largest open market – the Naschmarkt – with variety of international restaurants.

Restaurants in the Vicinity

Google Map at *http://vsl2014.at/venue/food*

Name	*Type (Cuisine)*	*Address*	*Website*	*Phone*
Camelot House	*Medieval*	Rechte Wienzeile 21, 1040 Wien	*www.camelot-restaurant.at*	+43 1 5852222
Heuer (Kunsthalle Cafe)	*International*	Treitlstraße 2, 1040 Wien	*www.heuer-amkarlsplatz.com*	+43 1 8900590
Kaffeefabrik	*Cafe*	Favoritenstraße 4-6, 1040 Wien	*www.kaffeefabrik.at*	+43 660 1789092
ON Market	*Chinese*	Linke Wienzeile 36, 1060 Wien	*www.on-market.at*	+43 1 5811250
Pessoa Lounge	*Portuguese / Tapas*	Favoritenstraße 7, 1040 Wien	*www.pessoalounge.com*	+43 650 4738686
Wiener Wirtschaft	*Viennese*	Wiedner Hauptstr. 27-29, 1040 Wien	*www.schick-hotels.com/wiener-wirtschaft-restaurant-wien.de.htm*	+43 1 22111364
Cafe Museum	*Cafe / Viennese*	Operngasse 7, 1010 Wien	*www.cafemuseum.at*	+ 43 1 24100620
Charly Fresh 1010	*Deli*	Karlsplatz 3, 1010 Wien	*www.charlyfresh.at*	+43 1 8906150
I Tricolori	*Italian*	Opernring 19, 1010 Wien	*www.itricolori.at*	+43 1 5870471
La Scala	*Italian*	Elisabethstraße 13, 1010 Wien	*lascala.at/kontakt.htm*	+43 1 5871958
Ludwig & Adele	*Viennese*	Akademiestraße 13 1010 Wien	*www.ludwigundadele.at*	+43 68181916101
Otto Wagner Pavillion	*Cafe*	Karlsplatz, Obj U26, 1010 Wien	*www.otto-wagner-pavillon.at*	+43 1 5059904
Unkai	*Gourmet Japanese*	Kärntner Ring 9, 1010 Wien	*http://www.unkai.at*	+43 1 515809110
Sass Music Club	*Club*	Karlsplatz 1, 1010 Wien	*www.sassvienna.com*	+43 69911880676
Senkoma	*Japanese*	Kärntner Straße 44, 1010 Wien	*www.senkoma.at*	+43 1 5872023
T.G.I. Friday's	*American*	Schubertring 13, 1010 Wien	*tgifridays.at/de*	+43 1 7148995
Wok & More	*Asian*	Karlsplatz 1, 1010 Wien	*www.wokandmore.at*	+43 1 5057603

Name	Type (Cuisine)	Address	Website	Phone
Asian Pavillion	*Asian*	Favoritenstraße 1, 1040 Wien		+43 1 9413133
Babette's	*Cafe*	Mühlgasse 9, 1040 Wien	*http://www.babettes.at/de*	+43 1 5855165
Beograd	*Balcan / Grill*	Schikanedergasse 7, 1040 Wien	*restaurant-beograd.at*	+43 1 5877444
Blueorange 4. Bezirk	*Deli / Bagels*	Margaretenstraße 9, 1040 Wien	*www.blueorange.co.at/blue-orange.php*	+43 1 5811770
Resselpark	*Viennese*	Wiedner Hauptstraße 1, 1040 Wien		+43 1 5055628
Casa Alberto	*Italian*	Argentinierstraße 15, 1040 Wien		+43 1 5057176
Chang	*Asian*	Waaggasse 1, 1040 Wien	*www.chang.at*	+43 1 9619212
Coté Sud	*French*	Schleifmühlgasse 8, 1040 Wien	*www.cotesud.at/kontakt.php*	+43 1 2080375
Crossover	*African / International*	Schleifmühlgasse 16, 1040 Wien	*www.cafe-crossover.at*	+43 1 5850388
Curry Up!	*Indian*	Gußhausstraße 19, 1040 Wien	*www.curryup.at/cms/*	+43 1 8902248
Da Gino e Maria	*Italian*	Schleifmühlgasse 21, 1040 Wien	*www.ristorante-daginoemaria.at*	+43 1 5874570
Delicious Monster	*Deli / Burgers*	Gußhausstraße 12, 1040 Wien	*www.deliciousmonster.at*	+43 1 9204454
Donatella	*Italian*	Margaretenstraße 42, 1040 Wien	*www.donatellafood.eu*	+43 1 5810231
Fein essen	*Regional / Seasonal*	Wiedner Hauptstraße 19, 1040 Wien	*www.feinessen.at*	+43 1 9719124
FreiWild	*Austrian / French*	Mühlgasse 20, 1040 Wien	*www.freiwild.co.at*	+43 1 9417903
Four Bells Pub	*Pub*	Schleifmühlgasse 2, 1040 Wien	*www.four-bells.at*	+43 1 5854785
Hanil Running Sushi Restaurant	*Running Sushi*	Rechte Wienzeile 7, 1040 Wien	*hanil1040.at*	+43 1 5853590
Demi Tass	*Indian*	Prinz Eugen-Straße 28, 1040 Wien	*www.restaurant-demitass.com*	+43 1 5043119

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Kebab Haus	*Kebab*	Operngasse 26, 1040 Wien		+43 1 5875308
Kiosk	*Bar*	Schleifmühlgasse 7, 1040 Wien		+43 664 3073622
Kojiro	*Japanese / Sushi*	Schleifmühlgasse 16, 1040 Wien		+43 1 5855428
Leanback	*Viennese / Mediterrane*	Rilkeplatz 3, 1040 Wien	*leanback.at*	+43 699 19646262
Manzana	*Spanish / Tapas*	Apfelgasse 1, 1040 Wien	*manzana.at*	+43 1 5047540
Naschmark Deli	*Oriental / International*	Naschmarkt Stand 421–436	*www.naschmarkt-deli.at*	+43 1 5850823
Nautilus	*Fresh Fish*	Naschmarkt 673, 1040 Wien	*www.nautilus-fischrestaurant.at*	+43 660 7766633
Nelson's Cafe Restaurant Bar	*Cafe / Deli*	Inside TU main building	*www.nelsons.at*	+43 1 5054144
Neruda	*Club*	Margaretenstraße 38, 1040 Wien	*www.neruda.at*	+43 1 9524516
Orange One	*Upper Austrian*	Margaretenstraße 26, 1040 Wieden	*www.orange-one.at*	+43 1 5862220
Point of Sale	*International*	Schleifmühlgasse 12-14, 1040 Wien	*www.thepointofsale.at*	+43 1 9416397
Collio	*Gourmet Italian*	Wiedner Hauptstraße 12, 1040 Wien	*www.dastriest.at/index.php?site=collio&user_lang=de*	+43 1 589181133
Gußhaus	*Viennese*	Gußhausstraße 23, 1040 Wien	*seitenkreativ.com/gusshaus*	+43 1 5044750
Artner	*Mediterrane / Grill*	Floragasse 6, 1040 Wien	*www.artner.co.at/de/wieden*	+43 1 5035033
Salon Wichtig	*Thai / Deli*	Karlsgasse 22, 1040 Wien	*www.salonwichtig.com*	+43 699 15153399
Santos	*Tex-Mex / Grill*	Favoritenstraße 4-6 1040 Wien	*www.santos-bar.com*	+43 1 9429902

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Sopile	*Croatian*	Paulanergasse 10, 1040 Wien	*www.sopile.at/de*	+43 1 5852433
Tancredi	*Viennese*	Große Neugasse 5, 1040 Wien	*www.tancredi.at*	+43 1 9410048
Taste of India	*Indian*	Margaretenstraße 34, 1040 Wien	*www.taste-of-india.at*	+43 1 5812305
TeigWare	*Italian*	Rilkeplatz 7/2, 1040 Wien	*www.teigware.at*	+43 6602538303
Tewa am Naschmarkt	*Oriental*	Naschmarkt Stand 672, 1040	*tewa-naschmarkt.at*	+43 676 847741211
Umar	*Fresh Fish*	Naschmarkt 76, 1040	*www.umarfisch.at*	+43 1 5870456
Wieden Bräu	*Viennese*	Waaggasse 5, 1040 Wien	*wieden-braeu.at*	+43 1 5860300
Yamo Yamo	*Asian*	Favoritenstraße 2, 1040 Wien	*www.yamoyamo.at*	+43 1 9139746
Zweitbester	*Regional / Seasonal*	Heumühlgasse 2, 1040 Wien	*www.zweitbester.at*	+43 1 9459386
Gasthaus Zur Goldenen Glocke	*Viennese*	Kettenbrückengasse 9, 1050 Wien	*www.zur-goldenen-glocke-wien.at*	+43 1 5875767
Margareta	*Italian*	Margaretenplatz 2	*www.schlossquadr.at*	+43 1 5444907
ON	*Chinese / Seasonal*	Wehrgasse 8, 1050 Wien	*www.restaurant-on.at*	+43 1 5854900
Silber Wirt	*Viennese / Seasonal*	Margaretenplatz 2	*www.schlossquadr.at*	+43 1 5444907
Aux Gazelles	*Arabic / French*	Rahlgasse 5, 1060 Wien	*www.auxgazelles.at*	+43 1 5856645
Cafe Drechsler	*Cafe / Viennese*	Linke Wienzeile 22, 1060 Wien	*www.cafedrechsler.at*	+43 1 5812044
Café Sperl	*Cafe / Viennese*	Gumpendorfer Straße 11, 1060 Wien	*www.cafesperl.at*	+43 1 5864158
Fischviertel	*Fresh Fish*	Naschmarkt 177-178, 1060 Wien	*www.fischviertel.at*	+43 1 8905198
Kiang Noodles	*Asian*	Joanelligasse 3, 1060 Wien	*www.kiang.at*	+43 1 5868796
Kurkonditorei Oberlaa	*Cafe*	Naschmarkt 175, 1060 Wien	*www.oberlaa-wien.at/de/standorte/6-naschmarkt-175.html*	+43 1 58746330
LioUnge	*Chinese*	Gumpendorfer Straße 29, 1060 Wien	*www.liounge.at*	+43 1 5863673
Neni	*Mediterrane / International*	Stand 510, Naschmarkt, 1060 Wien	*www.neni.at*	+43 1 5852020
Orient Occident	*Oriental / Turkish*	Naschmarkt 671, 1060 Wien	*www.orientoccident.at*	+43 1 5871046
Phil	*Cafe*	Gumpendorfer Straße 10-12, 1060 Wien	*phil.info*	
Piccini Riccardo GesmbH	*Italian*	Linke Wienzeile 4, 1060 Wien	*www.piccini.at*	+43 1 5875254
Ramien	*Asian*	Gumpendorfer Straße 9, 1060 Wien	*www.ramien.at*	+43 1 5854798

Name	Type (Cuisine)	Address	Website	Phone
El Greco	*Greek*	Pfauengasse 8, 1060 Wien	*www.restaurant-elgreco.at*	+43 1 5874135
Top Kino	*Bar*	Rahlgasse 1, 1060 Wien	*www.topkino.at*	
Vapiano	*Italian*	Theobaldgasse 19, 1060 Wien	*at.vapiano.com/de/restaurants/vapiano-wien-1-theobaldgasse-19*	+43 1 5811212
WEIN & CO	*Bar*	Linke Wienzeile 4, 1060 Wien	*www.weinco.at/shops-und-bars/shops/9316*	+43 5 07063102
Glacis-Beisl	*Viennese*	Breite Gasse 4, 1070 Wien	*www.glacisbeisl.at*	+43 1 5265660
Kantine	*Cafe / International*	Museumsplatz 1, 1070 Wien	*www.mq-kantine.at*	+43 1 52382 39
Kunsthalle	*Cafe / International*	Museumsplatz 1, 1070 Wien	*ww2.diehalle.at*	+43 1 5237001
Cafe Leopold	*Cafe / Seasonal*	Museumsplatz 1, 1070 Wien	*www.cafe-leopold.at*	+43 1 5236732

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Logic in Computer Science / Federated Logic Conference

26th International Conference on Computer Aided Verification (CAV)

The conference on Computer Aided Verification (CAV) is the premier conference dedicated to the advancement of the theory and practice of computer-aided formal analysis methods for hardware and software systems. CAV considers it vital to continue spurring advances in hardware and software verification while expanding to new domains such as biological systems and computer security. The conference covers the spectrum from theoretical results to concrete applications, with an emphasis on practical verification tools and the algorithms and techniques that are needed for their implementation.

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27th IEEE Computer Security Foundations Symposium (CSF)

The Computer Security Foundations Symposium (CSF) is an annual conference for researchers in computer security, to examine current theories of security, the formal models that provide a context for those theories, and techniques for verifying security. It was created in 1988 as a workshop of the IEEE Computer Society's Technical Committee on Security and Privacy, and it became an IEEE "symposium" in 2007, with a policy for open, increased attendance. Over the years, many seminal papers and techniques have been presented first at CSF. For more information about CSF, please see

http://www.ieee-security.org/CSF-Wweb/

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30th International Conference on Logic Programming (ICLP)

This year marks the 30th edition of the International Conference on Logic Programming (ICLP). Since the first conference held in Marseilles in 1982, ICLP has been the premier international conference for presenting research in logic programming.

In addition to 25 regular papers, 23 technical communications, and the doctoral symposium, the ICLP programme includes two invited talks, by Andrey Rybalchenko and Neng-Fa Zhou.

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7th International Joint Conference on Automated Reasoning (IJCAR)

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5th Conference on Interactive Theorem Proving (ITP)

ITP is the premier international conference for researchers from all areas of interactive theorem proving and its applications. It represents the natural evolution of the TPHOLs conference series to include research related to all other interactive theorem provers. TPHOLs meetings took place every year from 1988 until 2009. In 2010, the first ITP conference was held

in Edinburgh, Scotland, as part of the Federated Logic Conference (FLoC). Subsequent ITP conferences were held in Nijmegen, The Netherlands, in 2011, Princeton, New Jersey, USA, in 2012, and Rennes, France in 2013. ITP 2014 will again be a part of FLoC, in Vienna, Austria.

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Joint meeting of the 23rd EACSL Annual Conference on Computer Science Logic (CSL) and the 29th ACM/IEEE Symposium on Logic in Computer Science (LICS)

CSL is the annual meeting of the European Association for Computer Science Logic intended for computer scientists working on topics related to logic and for logicians working on topics related to computing. LICS is an ACM/IEEE annual symposium that focuses on theoretical and practical topics in computational logic. The organizers of these two series of meetings have chosen to merge the 2014 editions of these meetings into a single event within the Federated Logic Conference (FLoC) and the Vienna Summer of Logic. Thus, in 2014, these meetings will have one program committee, one program, and one proceedings.

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25th International Conference on Rewriting Techniques and Applications (RTA) joint with the 12th International Conference on Typed Lambda Calculi and Applications (TLCA)

RTA/TLCA-2014 is this year's joint event in the RTA and TLCA conference series. RTA (Rewriting Techniques and Applications) is held annually since 1985 and focuses on equational reasoning, with term rewriting as its main method. TLCA (Typed Lambda Calculi and Applications) is held biannually since 1993 and deals with typed and higher-order reasoning. Both conferences serve as forums for original work in areas ranging from the logical foundations of mathematics and computer science to applications in automated reasoning and programming language

semantics. RTA/TLCA-2014 as part of the Vienna Summer of Logic will strengthen the ties between these and neighbouring fields.

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17th International Conference on Theory and Applications of Satisfiability Testing (SAT)

The International Conference on Theory and Applications of Satisfiability Testing (SAT) is the primary annual meeting for researchers focusing on the theory and applications of the propositional satisfiability problem, broadly construed: besides plain propositional satisfiability, it includes Boolean optimization (including MaxSAT and Pseudo-Boolean (PB) constraints), Quantified Boolean Formulas (QBF), Satisfiability Modulo Theories (SMT), and Constraint Programming (CP) for problems with clear connections to propositional reasoning. Many hard combinatorial problems can be tackled using SAT-based techniques, including problems that arise in formal verification, artificial intelligence, operations research, biology, cryptology, data mining, machine learning, mathematics, etc. Indeed, the theoretical and practical advances in SAT research over the past 20 years have contributed to making SAT technology an indispensable tool in various domains.

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Logic in Artificial Intelligence

14th International Conference on Principles of Knowledge Representation and Reasoning (KR)

The KR conference series is a leading forum for timely in-depth presentation of progress in the theory and principles underlying the representation and computational management of knowledge. Knowledge Representation and Reasoning (KR&R) is a well-established and vibrant field of research. KR&R techniques are key drivers of innovation in computer science, and they have led to significant advances in practical applications in a wide range of areas from Artificial Intelligence to Software Engineering. The underlying approach of explicitly representing knowledge in a tangible form, suitable for processing by dedicated reasoning engines, is a fundamental component of many modern intelligent systems. Foundational and applied research in KR&R contributes to the principles of artificial intelligence. It also contributes to the foundations of longstanding fields including automated planning, databases, and software engineering. In recent years KR&R has also derived challenges from new and emerging fields including the semantic web, computational biology, and the development of software agents.

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27th International Workshop on Description Logics (DL)

Description logics are a family of knowledge representation languages that have been studied extensively over the last two decades; they are widely used as the basis of formal ontology languages and have major applications in a variety of areas, most notably in databases, medical informatics, and the semantic web.

The International Workshop on Description Logics is the major annual event of the description logic research community. It is the forum at which those interested in description logics, both from academia and industry, meet to discuss ideas, share information and compare experiences.

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15th International Workshop on Non-Monotonic Reasoning (NMR)

The NMR workshop series is the premier specialized forum for researchers in non-monotonic reasoning and related areas. Its aim is to bring together researchers in the broad area of non-monotonic reasoning. This year, the workshop comprises the following thematic tracks:

1. Actions, Causality, and Belief Change;
2. Declarative Programming;
3. Argumentation and Dialog;
4. Preferences, Norms, and Trust;
5. NMR and Uncertainty;
6. Commonsense and NMR for Ontologies;
7. Systems and Applications;
8. Benchmarks for NMR.

Furthermore, the program features also a special session jointly organized with the 27th International Workshop on Description Logics (DL 2014).

Program Committee

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International Workshop on Knowledge Representation for Health Care 2014 (KR4HC)

KR4HC aims at attracting the interest of novel research and advances contributing in the definition, representation and exploitation of health care knowledge in medical informatics. As computerized health-care support systems are rapidly becoming more knowledge intensive, the representation of medical knowledge in a form that enables reasoning is growing in relevance and taking a more central role in the area of Medical Informatics.

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Mathematical Logic

2014 ASL European Summer Meeting (Logic Colloquium '14)

This meeting takes place during the Vienna Summer of Logic (see below). The twenty-fifth annual Gödel Lecture will be delivered by J. Knight. The invited speakers are: A. Bauer, P. Blanchette, K. Eisenträger, A. Cordón Franco, V. Fischer, N. Greenberg, L. Kolodziejczyk, B. Miller, M. Reynolds, M. Soskova, and A. Visser. Tutorials will be offered by K. Apt and A. Miquel. Special Sessions (organizers in parentheses) include: Logic in computer science education (H. Veith), Logic of games/rational choice (R. Ramanujam), Model theory (Z. Chatzidakis), Perspectives on induction (M. Baaz, S. Hetzl; joint with LICS/CSL), Philosophy of mathematics (Ø. Linnebo), Recursion theory (E. Fokina and D. Turetsky), and Set theory (M. Goldstern and J. Kellner).

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Logic, Algebra and Truth Degrees 2014 (LATD)

The conference "Logic, Algebra and Truth Degrees 2014" will be held on 16-19 July 2014 in Vienna, Austria, as part of the Vienna Summer of Logic event. Logic, Algebra and Truth Degrees is the fourth official meeting of the EUSFLAT Working Group on Mathematical Fuzzy Logic. Mathematical Fuzzy Logic is a subdiscipline of Mathematical Logic which studies the notion of comparative truth. The assumption that "truth comes in degrees" has proved to be very useful in many theoretical and applied areas of Mathematics, Computer Science and Philosophy.

The featured topics include the following:

- Proof theory and computational complexity
- Algebraic semantics and abstract algebraic logic
- First, higher-order and modal formalisms
- Applications and foundational issues
- Geometric and game theoretic aspects

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Compositional Meaning in Logic (GeTFun 2.0)

The Fregean-inspired Principle of Compositionality of Meaning for formal languages may be construed as asserting that the meaning of a compound expression is deterministically (and often recursively) analysable in terms of the meaning of its constituents, taking into account the mode in which these constituents are combined to form the compound expression. After the success of its first edition, the workshop GeTFun 2.0 is dedicated to the study of various well-motivated ways in which the attractive properties and metaproperties of truth-functional logics may be extended so as to cover more logical ground.

Program Committee

Agata Ciabattoni and Carlos Caleiro

Workshop on Logic and Games (LG)

Formal logic can often be viewed through the lens of game theory, whereby various logical concepts—validity, consequence, provability, satisfiability, (in)dependence, possibility, etc.—become animated as games. Going in the other direction, one can start with games and find logics, and various logical concepts, therein. The idea of viewing logics as games, and vice versa, is by no means new, but it has enjoyed a certain renaissance in recent years. The workshop is intended to serve as a magnet to attract the latest research in the spirit of connecting logic to games. It will feature invited talks by K. Terui, G. Sandu and O. Majer and eight contributed talks.

Organizers

Jesse Alama

Chris Fermüller

Christoph Roschger

Nonclassical Proofs: Theory, Applications and Tools (NCPROOFS)

Non-classical logics are logics different from classical, boolean logic. They provide languages for reasoning e.g., about knowledge, time, data structures, vague information, resources, and have been increasingly applied in various disciplines. The workshop "Nonclassical Proofs: Theory, Applications and Tools" (NCPROOFS) will bring together distinguished experts working on syntactic and algorithmic aspects of these logics and of their semantic structures, with the purpose of promoting a greater degree of communication between Proof Theory, Semantics and Automated Deduction. The workshop will take place on July 20th 2014 and will feature invited talks from M. Baaz, A.Guglielmi, R. Kuznets, O. Lahav, G. Metcalfe, N. Olivetti, B. Paleo, K. Terui, R. Zach and A. Zamansky.

The workshop is organized by Agata Ciabattoni.

European Master in Computational Logic

Four leading European universities and an Australian partner institution have teamed up and developed a unique, integrated and distributed European Master Program in Computational Logic (EMCL). Its key features are:

- EMCL is a two-year research-oriented master program leading to a joint Master of Science (MSc) degree with English as language of instruction.
- The topics cover the theory and practice of computational logic, in particular the use of logical methods for knowledge representation, automated reasoning, program verification, natural language processing, and other fields, taught by about thirty experts.
- EMCL students conduct their studies at two of the four partner universities (Free University of Bolzano, Italy; Technische Universität Dresden, Germany; Universidade Nova e Lisboa, Portugal; Technische Universität Wien, Austria) and are awarded a joint degree by these universities. Moreover, there is the possibility of a research visit to NICTA (National ICT Australia Limited).
- EMCL is open to EU- as well as non-EU-students and offers scholarships ranging from tuition weavers to monthly payments, supported by the Erasmus Mundus programme of the European Union and other organisations.

Call for Students

If you are interested in logic and its applications, will have a bachelor's degree in Computer Science or Mathematics or an equivalent degree at the start of your EMCL study, and are sufficiently fluent in English, we encourage you to apply for admission to the EMCL program. The application deadlines are each year at the end of January and May.

Further information. For more information see the EMCL website at

www.emcl-study.eu

Logic is everywhere...

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Master Program in Computational Intelligence at the Vienna University of Technology

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Overview

Computational Intelligence is a Master program in computer science at the Vienna University of Technology. The name stands for an interdisciplinary field that has its roots in mathematics, computer science, and logic. The program covers topics in the following fundamental fields of computer science:

- algorithms and complexity,
- knowledge representation and artificial intelligence,
- logic, mathematics, and theoretical computer science, and
- programming languages and verification.

The curriculum is designed as a four semester program and is taught entirely in English. Students of the program learn basic and advanced methods in the field of Computational Intelligence and have the opportunity to gain insight into state-of-the art knowledge by working together with top researchers.

Professional Perspective

Computational Intelligence is crucial for today's infrastructure, industry, consumer products, and the internet. Logic and algorithms build the basis for tackling challenging tasks, such as storing and processing big amount of data, software verification for fail-safe software in critical environments, or fast algorithms to solve computationally hard problems.

The Master program in Computational Intelligence imparts knowledge at the highest international level. The program ideally prepares for an academic career, especially for a PhD, or a leading position in the industry.

The program not only provides technical education, but also trains cognitive, practical, and social skills.

Location

Vienna has a prominent history in mathematics, computer science, and logic research. The resident world-class faculty in computational logic, knowledge representation, and formal methods, and the city being continuously top ranked in Mercer's "Quality of Living" ranking are only two among many reasons why (international) students and top researchers consider Vienna as an ideal place to study and doing research.

Admission

Prerequisite for the enrollment in the program are a Bachelor or an equivalent degree in computer science (Bologna first cycle) or in another subject-related field. Since the language of instruction is English, the command of English should be at least level B2 according to the Common European Framework of Reference for Languages.

The deadlines for the application for admission are as follows:

- September 5, 2014, for the winter term 2014, and
- February 5, 2015, for the summer term 2015.

Further Information

For additional information on the program and the admission procedure, see

http://logic-cs.at

Call for Doctoral Students

Doctoral College "*Logical Methods in Computer Science*"

TU Wien, **TU Graz**, and **JKU Linz** are seeking exceptionally talented and motivated students for their joint doctoral program LogiCS. The LogiCS doctoral college focuses on interdisciplinary research topics covering

(i) computational logic
(ii) databases and artificial intelligence
(iii) computer-aided verification

THE PROGRAM

LogiCS is a doctoral college focusing on logic and its applications in computer science. Successful applicants will work with and be supervised by leading researchers in the fields of computational logic, databases and knowledge representation, and computer-aided verification.

FACULTY MEMBERS

M. Baaz :: A. Biere :: R. Bloem
A. Ciabattoni :: U. Egly :: T. Eiter
C. Fermuller :: R. Grosu :: A. Leitsch
M. Ortiz :: R. Pichler :: S. Szeider
H. Tompits :: H. Veith :: G. Weissenbacher

logics Logical Methods in Computer Science

FUNDED DOCTORAL POSITITONS

We are looking for 1-2 doctoral students per faculty member, where 30% of the positions are reserved for highly qualified female candidates. The doctoral positions are funded for a period of 3 years according to the funding scheme of the Austrian Science Fund. The funding can be extended for one additional year contingent on a placement at one of our international partner institutions.

HOW TO APPLY

Detailed information about the application process is available on the LogiCS web-page

http://logic-cs.at/phd

The applicants are expected to have completed an excellent diploma or master's degree in computer science, mathematics, or a related field. Candidates with comparable achievements will be considered on a case-by-case basis. Applications by the candidates need to be submitted electronically.

LOGIC IN AUSTRIA

The cities of Vienna, Graz, and Linz provide an exceptionally high quality of life and a thriving logic in computer science community.

http://vsl2014.at
http://vcla.at
http://kgs.logic.at
http://www.arise.or.at

Vienna Center for Logic and Algorithms

About VCLA

The **Vienna Center for Logic and Algorithms** (VCLA) is an initiative of Vienna University of Technology (TU Vienna). Located at the Faculty of Informatics, the Center is promoting international scientific collaboration in logic and algorithms.

The main activities of VCLA are

- the **VCLA Workshop Series**,
- the **VCLA Schools**, a series of winter and summer schools, and
- the **VCLA Visitor Program**.

The scientific program 2011-2014 is focusing on

- Constraint Satisfaction
- Verification of Hardware and Software, and
- Knowledge Representation

VCLA is coordinated by a local board in collaboration with an international advisory board. Acting chairs are Stefan Szeider and Helmut Veith. Founding of VCLA was made possible by a three-year competitive grant of Vienna University of Technology. The activities of VCLA are typically cofinanced by other grants and organizations.

You can find out more about VCLA at

http://www.vcla.at

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The VCLA is hosted by four research groups at the Faculty of Informatics:

- Database and Artificial Intelligence Group
- Knowledge-Based Systems Group
- Formal Methods in Systems Engineering Group
- Logic and Theory Group

RiSE

Rigorous Systems Engineering

RiSE bundles the research in formal verification in Austria. Funded by FWF, fifteen researchers collaborate to move beyond a-posteriori verification to supporting programmers by computer-aided methods and tools that are based on a rigorous foundation.

Through sponsoring and PC chairs, RiSE is involved in CAV, LICS, SAT, FRIDA, iPRA, the SAT/SMT Summer School, as well as the organization of FLoC and VSL.

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(TU Vienna)

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(JKU Linz)

Roderick Bloem
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Coordinator

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(IST)

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ACMSIGLOG

A New Community Organization: SIGLOG

ACM is delighted to announce the formation of a new special interest group focussed on logic and computation. The new SIG will be called SIGLOG. There will be two events* at this FLoC where the executive committee will meet the community, discuss the aims of SIGLOG and answer questions from the audience.

SIGLOG aims to serve a broad range of interests. The flagship conference will be the ACM-IEEE Symposium on Logic in Computer Science.
A SIGLOG newsletter is planned to be published quarterly in an electronic format with community news, technical columns, members' feedback, conference reports, book reviews and other items of interest to the community. An important activity of SIGLOG will be advocating for the importance of logic in the undergraduate computer science curriculum. Another important activity will be the establishment of prizes to recognize the outstanding contributions made by leading members of the community. SIGLOG will collaborate closely with EATCS and EACSL as well as other organizations, for example the Gödel Society. SIGLOG will maintain close ties with the ACM Transactions on Computational Logic.

SIGLOG seeks to be an inclusive and diverse organization. We are committed to encouraging the participation of women in computing and are pleased to note that there are many outstanding women leaders in the research areas covered by SIGLOG. We actively seek members from all geographical regions and from a broad variety of research interests.

* Tuesday July 15th at 18:00 in Freihaus (FH), Hörsaal 5
Tuesday July 22nd at 18:00 in Freihaus (FH), Hörsaal 8

www.siglog.acm.org

Legal Information

Disclaimer, Governing Law and Jurisdiction

In case of conference cancellation for reasons beyond the control of VSL 2014 organizers, the liability of the VSL 2014 organization is limited to the fees already paid by the registrants. VSL 2014 organizer will not be responsible for any personal inconvenience that may arise.

General Disclaimer for Hotels and other service providers

In offering various hotels, Vienna Airport, Vienna Public Transportation and all other service providers (hereinafter referred to as "Supplier(s)") for the Vienna Summer of Logic 2014, the Kurt Goedel Society acts only in the capacity of agent for the Suppliers and has no control over personnel, equipment or operations or providers of accommodations or other services included as part of the VSL 2014 program. The Kurt Goedel Society assumes no responsibility for and will not be liable for any personal delay, inconvenience or other damage suffered by conference participants which may arise by reason of (1) any wrongful or negligent acts or omissions on the part of any Supplier or its employees, (2) any defect in or failure of any vehicle, equipment or instrumentality owned, operated or otherwise used by any Supplier, or (3) any wrongful or negligent acts or omissions on the part of any other party not under control, direct or otherwise, of the Kurt Goedel Society.

Cancellation Conditions

Optional delegate insurance can be purchased at time of registration. Early registration cancellations before early registration deadline are possible at a fee of EUR 60. No refunds will be offered to uninsured participants! Additional fees may be applicable to hotel reservation cancellations!

Governing Law

The VSL 2014 organization shall be governed by the laws of the Republic of Austria without regard to the conflict of law principles of any jurisdiction.

Jurisdiction and Venue

Any legal proceeding arising out of or relating to the Vienna summer of Logic 2014 shall be instituted in general court of jurisdiction in the City of Vienna, Austria. All participants hereby consent to the personal and exclusive jurisdiction of such court.

Photo and Video Recording Release Statement

For valuable consideration received, I hereby give the Kurt Goedel Society (KGS) the absolute and irrevocable right and permission, with respect to the photographs and video that will be taken of me during the Vienna Summer of Logic 2014(VSL-14) held July 9-24, 2014 at the Vienna University of Technology, Vienna, Austria.

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Vienna Summer of Logic Visual Identity

The laurel wreath in the logo of the Vienna Summer of Logic is taken from an architectural detail on the side elevation of the Secession building not far from the conference site. Designed by Koloman Moser, it appears there in conjunction with three owls, attributes of Athena, the Greek goddess of wisdom. It is intended to connect the Vienna Summer of Logic back to ancient Greece, where logic as an independent field of study was initiated. As laurel wreaths were awarded to victors of athletic competitions in ancient times, the logo also references the Olympic tradition, continued in spirit at the FLoC Olympic Games of competitions in fields of computational logic. The reference to art of the Secession Movement also connects the Vienna Summer of Logic to the times of Gödel, Wittgenstein, and the Vienna Circle.

Like the Vienna Circle movement did in science and philosophy, the Vienna Secessionist Movement objected to the prevailing conservatism of its time and gained international fame. By a beautiful coincidence of history, the Secession Movement had its first address in the former Hotel Victoria which today houses the Department of Computer Science of the Vienna University of Technology.

Design by Anna Petukhova • *annapetukhova.com*

The conference poster is a playful reply to the frequent association of VSL with the Summer of Love. Designed as an art festival poster, it expresses our passion for logic and the enthusiasm for the intellectual feast ahead.

Imprint

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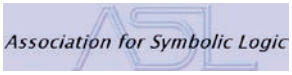

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