# Vienna Summer of Logic 2014

## Photo Gallery

VIENNA
SUMMER
OF LOGIC

2014

Organized by

kurt gödel
society

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I|S|T AUSTRIA
Institute of Science and Technology

]a[ akademie der bildenden künste wien

# Contents

© Philipp Horak

From left to right: **Matthias Baaz** *(TU Wien)* | **Stefan Hetzl** *(TU Wien)* | **Krishnendu Chatterjee** *(IST Austria)*
**Alex Leitsch** *(TU Wien)* | **Stefan Szeider** *(TU Wien)* | **Georg Weissenbacher** *(TU Wien)* | **Florian Zuleger** *(TU Wien)*
**Thomas Eiter** *(TU Wien)* | **Ekaterina Fokina** *(U. Wien)* | **Roderick Bloem** *(TU Graz)* | **Hans Tompits** *(TU Wien)*
**Daniel Weller** *(TU Wien)* | **Tom Henzinger** *(IST Austria)* | **Sy David Friedman** *(U. Wien)* | **Madgalena Ortiz** *(TU Wien)*
**Michael Fink** *(TU Wien)* | **Nysret Musliu** *(TU Wien)* | **René Thiemann** *(U. Innsbruck)* | **Helmut Veith** *(TU Wien)*
**Agata Ciabattoni** *(TU Wien)* | **Stefan Woltran** *(TU Wien)*

This group picture was produced on the occasion of the cover shooting for the Austrian current affairs magazine "profil" on June 17, 2014, by photographer Philipp Horak in the Theseus temple in Vienna's Volksgarten. We thank the Kunsthistorische Museum Vienna for enabling the production.

# Introduction

From July 9-24, 2014, Vienna hosted twelve large conferences and 81 workshops which formed the Vienna Summer of Logic (VSL). Together, they attracted more than 2100 logic researchers from all corners of the world.

Over 1700 academic talks were accompanied by a rich program offering panel discussions, an exhibition, and public lectures. The VSL was also the site of the first Olympic Games of Logic and the award ceremony for the prestigious Kurt Gödel Research Prize Fellowships.

The general public and the media showed high interest in the VSL, which proved that logic had once again become a significant part of intellectual life in Austria. Vienna, the city of Kurt Gödel, was reinstated as an important international center for logic research, a status which the city had already held in the 1920s.

A comprehensive public events program was created in order to convey the importance of logic to the general public. Together with public lectures and the very popular series of panel discussions (LogicLounge), an exhibition called "Kurt Gödel and the Origins of Logic in Vienna" provided a multi-faceted experience of logic research and history.

The first Olympic Games of Logic established a new academic tradition: from now on, this cluster of solver competitions will be held every four years as part of the Federated Logic Conference, gathering challenging disciplines from the field of computational logic.

The impact of the VSL speaks of great success: Not only was the Vienna Summer of Logic an exceptionally large academic gathering in computer science, it directed a significant amount of public attention to logic research as well.

*Vienna, September 2014*

*Matthias Baaz, Thomas Eiter, Helmut Veith*

Zwischen dem 9. und 24. Juli 2014 lockten die zwölf großen Konferenzen und 81 Workshops des Vienna Summer of Logic (VSL) über 2100 Logik-ForscherInnen aus der ganzen Welt nach Wien.

Mehr als 1700 wissenschaftliche Vorträge wurden durch Podiumsdiskussionen, eine Ausstellung und Vorlesungen für die interessierte Öffentlichkeit begleitet. Die ersten „Olympischen Spiele der Logik" sowie die Verleihung der hochdotierten "Kurt Gödel Research Prize Fellowships" wurden im Rahmen des VSL abgehalten.

Das große öffentliche Interesse und die Medienresonanz beweisen: Logik ist heute wieder ein wesentlicher Teil des intellektuellen Lebens in Österreich. Wien, die Stadt Kurt Gödels, ist wieder ein wichtiges internationales Zentrum dieses Forschungsgebietes, wie sie das schon in den 1920er Jahren war.

Um einer breiten Öffentlichkeit zu vermitteln, wie wichtig Logik heute ist, wurde ein umfangreiches Öffentlichkeitsprogramm zusammengestellt. Neben Public Lectures und einer vielbesuchten Reihe an Podiumsdiskussionen (LogicLounge) gab es auch eine Ausstellung über Kurt Gödel und die Ursprünge der Logik in Wien zu sehen.

Mit den Olympischen Spielen der Logik wurde eine neue wissenschaftliche Tradition begründet: In Zukunft soll dieser Wettbewerb, bei dem in zahlreichen Kategorien Logik-Programme gegeneinander antreten, alle vier Jahre im Rahmen der Federated Logic Conference abgehalten werden.

Die erfolgreiche Bilanz der größten Veranstaltung in der Geschichte der Logik: Der Vienna Summer of Logic war nicht nur ein wissenschaftliches Großereignis, er trug auch dazu bei, der Logikforschung breite öffentliche Aufmerksamkeit zu verschaffen.

*Wien, September 2014*

Agata Ciabattoni





Thomas Eiter, Helmut Veith,
Agata Ciabattoni, Dana Scott,
Christos Papadimitriou,
Moshe Vardi,
Stefan Szeider,
Georg Gottlob



Thomas Eiter



Matthias Baaz

# VSL Opening



Sabine Seidler
*Rector of Vienna University of Technology*



Agata Ciabattoni,
Helmut Veith,
Matthias Baaz

"

VSL'14 was an absolutely amazing scientific event. The richness of this meeting was unparalleled in the history of logic and in my own career. Computer science is typically a fragmented discipline. VSL'14 countered this fragmentation by bringing essentially ALL events related to logic and computation together to Vienna. The addition of keynotes, plenaries, panels, public lectures, and LogicLounge events, rounded up the meeting and turned it into an intellectual celebration of the first degree.

**Moshe Vardi** FLoC General Chair
*Professor of Computer Science at Rice University, Texas*



Helmut Veith



Dana Scott



Stefan Szeider,
Georg Gottlob

# Keynote Talks

## VSL Keynote Speakers

**Franz Baader**
*(TU Dresden)*

**Edmund M. Clarke**
*(Carnegie Mellon University)*

**Christos Papadimitriou**
*(University of California, Berkeley)*

**Alex Wilkie**
*(University of Manchester)*

Franz Baader

Moshe Vardi

Christos Papadimitriou


Edmund Clarke






Christos Papadimitriou, Dana Scott, Moshe Vardi

Georg Gottlob, Christos Papadimitriou




Alex Wilkie

# Panels

" I have been participating in conferences for 25 years now, yet VSL 2014 stands out as the most memorable meeting I have been to. Thanks to a record number of participants, breadth of topics covered in its conferences, and scientific depth of the results presented, it will have a long lasting impact.

**Rajeev Alur**
*Zisman Family Professor of Computer and Information Science*
*University of Pennsylvania, USA*

# Impressions
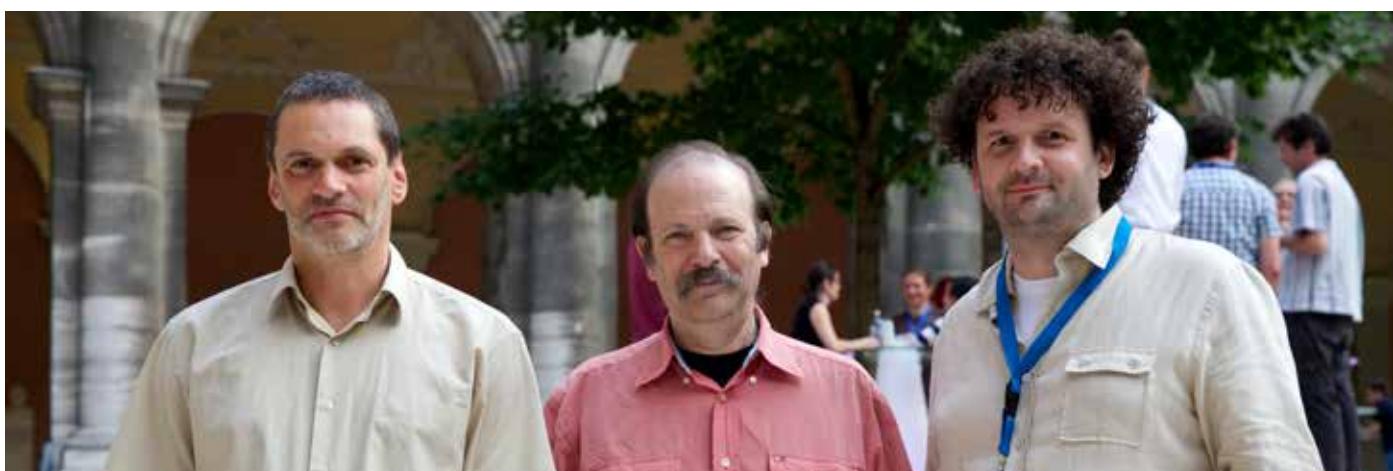
# Vienna Summer of Logic 2014
## in aller Öffentlichkeit *goes public*

**VIENNA SUMMER OF LOGIC 2014**
July 9-24, 2014 · *http://vsl2014.at*
Hosted by
**TU WIEN** TECHNISCHE UNIVERSITÄT WIEN
Vienna University of Technology

## Ausstellung *Exhibition*

**Kurt Gödel und die Ursprünge der Logik in Wien** *Kurt Gödel and the origins of logic in Vienna*

**15 Juli[y] – 24 Juli[y]** Akademie der Bildenden Künste Wien *Academy of Fine Arts Vienna*
**10:00 – 18:00** Täglich[daily] | Eintritt frei *Free admission*

**14 Juli[y]** Eröffnung[Opening] mit[with] Patricia Blanchette *(U Notre Dame)*
**18:30** und[and] Peter Weibel *(Angewandte/ZKM Karlsruhe)*

## LogicLounge *LogicLounge*

**LogikerInnen präsentieren im Dialog Aspekte ihrer Wissenschaft** *Logicians present aspects of their science in dialogue*

**17:00-18:00** Heuer am Karlsplatz in der[at the] Kunsthalle Wien Karlsplatz

**14 Juli[y]** Christos Papadimitriou *(UC Berkeley)* | Helmut Veith *(TU Wien)* |
**Logic goes Pop** *Logic goes Pop*

**15 Juli[y]** Georg Gottlob *(U Oxford)* | Oliver Lehmann *(Klub der Bildungs- und Wissenschaftsjournalisten)* | **Gödel, Escher, Bach und Falco: Die Wiederentdeckung der Logik im Wien der 1980er** *Gödel, Escher, Bach and Falco: the rediscovery of logic in 1980s Vienna*

**16 Juli[y]** Richard Zach *(U Calgary)* | Thomas Kramar *(Die Presse)* |
**Der unvollständige Kurt Gödel** *The incomplete Kurt Gödel*

**19 Juli[y]** Roderick Bloem *(TU Graz)* | Michael Fleischhacker |
**Die Wahrheit als Zahlenspiel** *The game of truth*

**20 Juli[y]** Byron Cook *(UC London)* | Katharina Gsöllpointner *(Angewandte)* |
**The logic of symbols: How to invent a new language** *Die Logik der Symbole: Wie man eine neue Sprache erfindet*

**22 Juli[y]** Moshe Vardi *(Rice U)* | Herbert Hrachovec *(U Wien)* |
**Drones with a guilty conscience: the ethics of Artificial Intelligence** *Drohnen mit schlechtem Gewissen: Die Ethik der Künstlichen Intelligenz*

**23 Juli[y]** Agata Ciabattoni *(TU Wien)* | Tanja Traxler *(Der Standard)* |
**Weibliche Logiken** *Female logics*

## Öffentliche Vorlesungen *Public Lectures*

**19:00** Kuppelsaal TU Wien (Karlsplatz 13)

**15 Juli[y]** Karl Sigmund *(TU Wien)* | **Gödel in Vienna** *Gödel in Vienna*

**21 Juli[y]** Friedrich Stadler *(TU Wien)* | **Vienna Circle(s)– Between Philosophy and Science in Cultural Context** *Wiener Kreis(e) – Zwischen Philosophie und Wissenschaft im kulturellen Kontext*

*VSL 2014 in aller Öffentlichkeit* [goes public] *konzipiert und kuratiert von* [devised and curated by]
*Helmut Veith und* [and] *Oliver Lehmann*
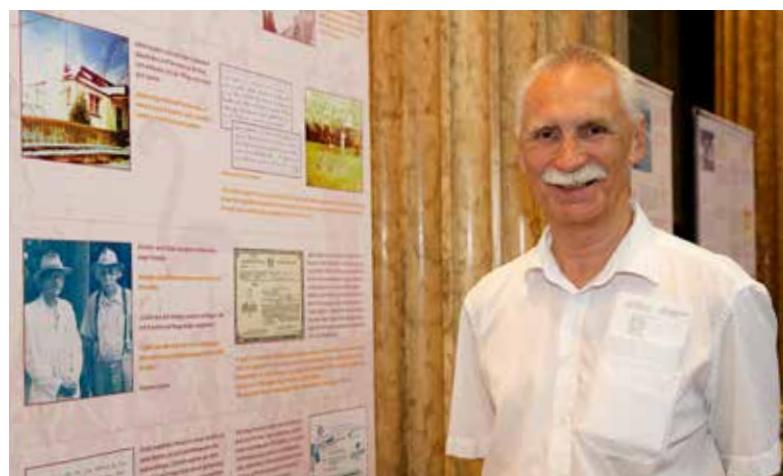
# Public Events

"

The most exciting conference I ever attended and a tough act to follow.

**Tobias Nipkow**
*Professor for Logic and Verification at Technische Universität München*
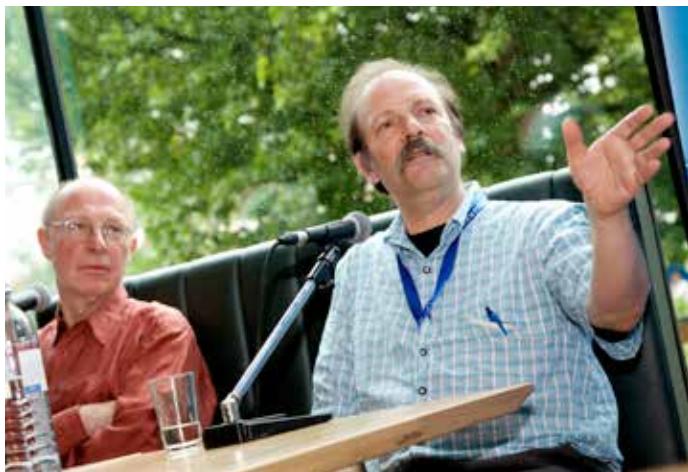
# Award Ceremonies

**Kurt Gödel Research Prize Fellowships Program Winners**

Logical Foundations of Mathematics:
**Marcin Sabok**
*(University of Wroclaw)*

Logical Foundations of Computer Science:
**Matteo Mio**
*(University of Cambridge)*

Logical Foundations of Artificial Intelligence:
**Gianluigi Greco**
*(University of Calabria)*

**Lifetime Achievement Award**
**Werner DePauli-Schimanovich**
*(University of Vienna)*
**Zhang Mingyi**
*(Guizhou Academy of Sciences)*

**EMCL Distinguished Alumni Award**
**Maria Magdalena Ortiz de la Fuente**
*(Vienna University of Technology)*

"

It has been a thoroughly enjoyable and intellectually stimulating mega-gathering of inquiring minds.

**Nachum Dershowitz**
*Professor at the Department of Computer Science, University of Tel Aviv*



Maria Magdalena
Ortiz de la Fuente



Thomas Krennwallner
(Vienna University of Technology):
Organizer of the FLoC Olympic
Games

Gianluigi Greco, Marcin Sabok, Dana Scott, Matthias Baaz, Matteo Mio

Happy birthday,
Moshe Vardi!

Werner DePauli-Schimanovich, Matthias Baaz



Georg Gottlob, Zhang Mingyi

# Social Events

"
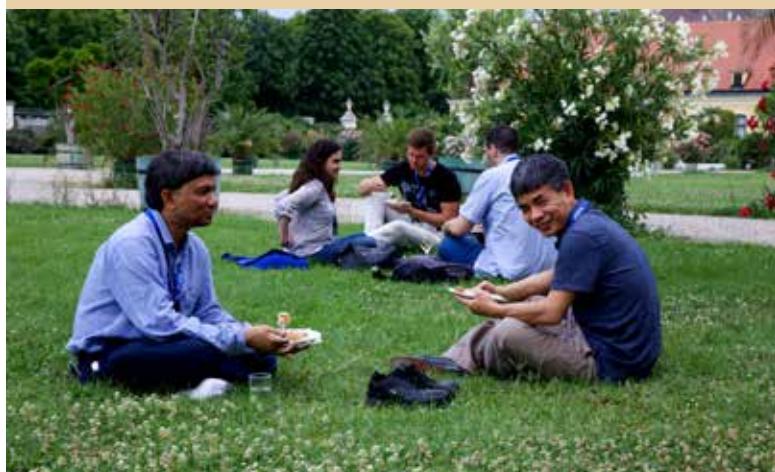
VSL was both a great mixture of talks and an opportunity to have a lot of fruitful scientific discussions.

**Véronique Cortier**

*CNRS Researcher, LORIA*

# Media Coverage

This overview is just a selection – for a complete list of articles, links and audio files, please visit the VSL Media Coverage page:

*http://vsl2014.at/media-coverage*

### 6/9/2014

Online article on *derstandard.at* (German)
**Logische Olympionikin**
(The Logic Olympian)

### 31/7/2014

Article in *Communications of the ACM*
**Specialists Gather in Praise of Logic**

### 24/7/2014

Online article on *diestandard.at* (German)
**Wiener Logik-Sommer: Die Lösung fragt nicht nach dem Geschlecht**
(Viennese Logic Summer: The solution does not ask about gender)

Online article on *science.apa.at* (German)
**Der Vienna Summer of Logic geht zu Ende**
(The Vienna Summer of Logic comes to an end)

### 23/7/2014

Online article on *nachrichten.at* (German)
**Linzer Informatiker gewann sechs Medaillen bei Logik-Olympiade**
(Computer scientist from Linz won six medals at Olympic Games of Logic)

### 22/7/2014

Radio report on *Ö1* (English/German)
**Gödel googelt. Wie logisch ist die digitale Welt?**
(Gödel googles. How logical is the digital world?)

Newspaper article in *Der Standard* (German)
**Österreicher holen bei Olympischen Spielen der Logik 13 Medaillen**
(Austrians win 13 medals at Olympic Games of Logic)

Newspaper article in *Kronen Zeitung* (German)
**Olympischen Spiele der Logik: Erfolg für Österreich**
(Olympic Games of Logic: Success for Austria)

Online article on *science.apa.at* (German)
**Linzer Erfolg bei Olympischen Spielen der Logik**
(Linz success at the Olympic Games of Logic)

Online article on *futurezone.at* (German)
**Österreicher bei Olympischen Spielen der Logik erfolgreich**
(Austrians successful at the Olympic Games of Logic)

### 19/7/2014

Newspaper article in *Süddeutsche Zeitung* (German)
**„Logik ist mächtig"** – print only
(„Logic is powerful")

### 16/7/2014

Newspaper article in *Der Standard* (German)
**„Dieser Algorithmus braucht Sex"**
(„This algorithm needs sex")

### 15/7/2014

Newspaper article in *Die Presse* (German)
**Gödels Tiefe und Weltfremdheit**
(Gödel's depth and worldly innocence)

Online article on *UNI.at* (German)
**Papadimitriou: "Logik als Liebesgeschichte"**
(Papadimitriou: "Logic as a love story")

Online article on *science.apa.at* (German)
**Algorithmus zeigt: Selektion führt zu Vielfalt**
(Algorithm shows: selection leads to diversity)

### 11/7/2014

Newspaper article in *Wiener Zeitung* (German)
**„Der Computer ist ein Preuße"**
(„The computer is Prussian")

### 10/7/2014

Newspaper article in *Der Standard* (German)
**Ausstellung über Kurt Gödel: Die Logik der Unvollständigkeit**
(Kurt Gödel Exhibtion: The logic of incompleteness)

Newspaper article in *Der Standard* (German)
**Wie die Kunst zur Logik kam**
(How art came to logic)

Online article on *science.apa.at* (German)
**VSL: Renommierte Logikforscher geben einander die Klinke in die Hand**
(VSL: Renowned logic researchers gather together)

### 9/7/2014

Radio report on *FM4* (English/German)
**Vienna Summer of Logic** (scroll down on website)

Online article on *science.orf.at* (German)
**Das Revival der Wiener Logik**
(The revival of Viennese logic)

Newspaper article in *Der Standard* (German)
**Der Kongress denkt: Österreich ist wieder logisch**
(The Congress thinks: Austria is logical again)

**7/7/2014**

Cover story in *Profil* magazine (German)
**Logik, die wichtigste Wissenschaft der Welt**
(Logic, the most important science in the world)

Online article on *science.orf.at* (German)
**"Sommer der Logik" beginnt**
("Summer of Logic" begins)

Newspaper article in *Der Standard* (German)
**VSL: Die Olympischen Spiele der Logik - Informatik ganz sportlich**
(VSL: The Olympic Games of Logic - sporty computer science)

Newspaper article in *Tiroler Tageszeitung Online* (German)
**Der „Vienna Summer of Logic" soll Neugier auf Logik wecken**
(The "Vienna Summer of Logic" aims to inspire curiosity about logic)

Newspaper article in *Der Standard* (German)
**Eine Komposition zu Ehren Kurt Gödels**
(A composition in honour of Kurt Gödel)

Newspaper article in *Kurier* (German)
**Erste Olympische Spiele der Logik in Wien**
(First Logic Olympic Games in Vienna)

Online article on *futurezone.at* (German)
**Erste Olympische Spiele der Logik in Wien**
(First Logic Olympic Games in Vienna)

Online article on *science.apa.at* (German)
**"Vienna Summer of Logic": Logik in Wien als Comeback-Story**
("Vienna Summer of Logic": Logic in Vienna as a comeback story)

**5/7/2014**

Newspaper article in *Die Presse* (German)
**Wort der Woche**
(Word of the week)

**4/7/2014**

Online article on *science.orf.at* (German)
**Die ersten Olympischen Spiele der Logik**
(The first Olympic Games of Logic)

Newspaper article in *Wiener Zeitung* (German)
**Olympische Zahlenspiele**
(Olympic number games)

**2/7/2014**

Announcement in *Falter* 27/14 (German)
**Falter Zoo: "Logik-WM" im "Summer of Logic"** – print only
("Logic World Championship" at "Summer of Logic")

**1/7/2014**

Online article on *science.apa.at* (German)
**Die ersten Olympischen Spiele der Logik**
(The first Olympic Games of Logic)

**28/6/2014**

Newspaper article in *Die Presse* (German)
**Ein Sommer der Logik in Wien**
(A summer of logic in Vienna)

Online article on *wien.orf.at* (German)
**Logik-"Woodstock" im Juli in Wien**
Logic-"Woodstock" in Vienna in July

**23/6/2014**

Online article on *futurezone.at* (German)
**"Vienna Summer of Logic": Wien wird zum Logik-Woodstock**
("Vienna Summer of Logic": Vienna turns into a Logic Woodstock)

Online article on *vienna.at* (German)
**Auseinandersetzung mit Logik**
(Dealing with logic)

**14/4/2014**

Announcement by the European Union of the Science Journalists' Associations (English)
**Vienna Summer of Logic**

**2/4/2014**

Online article on *Futurezone.at* (German)
**Konferenz "Summer of Logic 2014" in Wien feiert Kurt Gödel**
(Conference "Summer of Logic 2014" celebrates Kurt Gödel in Vienna)

**10/12/2013**

Online article on *Computerwelt.at* (German)
**Vienna Summer of Logic**

# Music during the Vienna Summer of Logic

During the first VSL Joint Award Ceremony, the attendees were able to witness the world premiere of the *Tribute to Kurt Gödel* (op. 55) and to listen to a short musical piece called *Gödel Fanfare*, both composed by Michael F.P. Huber.

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

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



The Adamas string quartet performing the **Tribute to Kurt Gödel**

# 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.

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.





Design by Anna Petukhova · annapetukhova.com

Helmut Veith,
Matthias Baaz,
Thomas Eiter

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*http://vsl2014.at*

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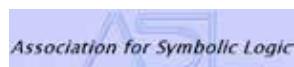
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