PROGRAM

Logic Colloquium 2004

Turin, Italy
25-31 July 2004

Program Committee

Toshiyasu Arai
Dick de Jongh
Warren Goldfarb
Greg Hjorth
Steffen Lempp
Gabriele Lolli
David Marker
Tony Martin
Ralph McKenzie
Wolfram Pohlers (Chair)
Wilfried Sieg
Andera Sorbi
Alex Wilkie

Organizers of the Special Sessions

Proof Theory:	Tim Carlson
	Michael Rathjen
	Andreas Weiermann
Model Theory:	David Marker
	Alex Wilkie
Universal Algebra:	Keith Kearnes
	George McNulty
	Ross Willard
	Matthew Valeriote

Local Organizing Committee

Alessandro Andretta (Chair)
Stefano Berardi
Riccardo Camerlo
Ugo de'Liguoro
Mariangiola Dezani
Nicola Olivetti
Domenico Zambella

Sponsors

We would like to acknowledge the many Agencies, Companies, and Institutions that made the Logic Colloquium 2004 possible.

- ASL, the Association for Symbolic Logic,
- AILA, the Associazione Italiana di Logica e Applicazioni
- INdAM, the Istituto Nazionale di Alta Matematica, Gruppo Nazionale Strutture Algebriche e Geometriche e Applicazioni
- Dipartimento di Matematica dell'Università degli Studi di Torino
- Dipartimento di Informatica dell'Università degli Studi di Torino
- Assessorato alla Cultura del Comune di Torino
- Regione Piemonte
- Apple Computer Italia
- Unione Industriale di Torino
- Compagnia di San Paolo
- Fondazione Cassa di Risparmio di Torino

Fellowships and travel grants

We managed to award over 90 grants to students, young post-docs, and researchers from developing countries. These grants were made possible by the generous contribution of the ASL, The National Science Foundation, and the Compagnia di San Paolo.

About the meeting

Conference location All the main activities of the Logic Colloquium 2004 will take place at the

Centro Convegni dell'Unione Industriale
via M. Fanti, 17, Torino.

Registration will be held on Sunday July 25, from 16:00–20:00 at the Atrium Città, a modern looking building located in the middle of Piazza Solferino, in the center of Torino. (You can also register on Monday and the subsequent days at the conference location.) On registering, participants and accompanying persons will receive a badge which is required to access the conference venues. If you plan to attend the excursion and/or the social dinner and haven't yet registered for it/them you should contact the Organizing Secretariat by noon, Tuesday 27.

Lecture rooms The *Sala Giovanni Agnelli*, seating up to 476 people and sporting a beam-, overhead-, and slide-projectors, is the main lecture room. The other lecture rooms are the *Sala 200*, *Sala Torino*, *Sala del Consiglio*, and *Sala Piramide*. They are all equipped with slide-projectors. All Plenary Lectures and Tutorials are held in room Sala Agnelli, while the panel discussion is held in room Sala 200. The Special Sessions in Proof Theory, Model Theory, Universal Algebra are held in rooms Sala Agnelli, Sala 200, and Sala Torino respectively. The Contributed Papers Sessions are held in all five rooms Sala Agnelli, Sala 200, Sala Torino, Sala Piramide, and Sala Consiglio.

Computers There are a few Apple computers (running OSX 10.3) gracefully made available by Apple Computers Italia. All computers have internet connection and are located in the room near the Organizing Secretariat. Please keep in mind that all participants rely on these machines for checking email and internet browsing, so avoid using them for too long. Since the Conference Location has a wireless network (WIFI), if you have a laptop with wireless connectivity, you may consider bringing it to the conference so that you can check e-mail at your leisure.

Book exhibits Nearby the computer room and the Secretariat there are book exhibits of Oxford University Press and of ASL.

Coffee breaks Coffee and tea will be served from Monday through Saturday from 11:00 to 11:20, and from Monday through Wednesday and on Saturday from 16:20 to 16:40. On Tuesday a small aperitif will be served from 19:45 to 20:10. Moreover there is a coffe-bar at the conference location.

Lunch breaks There are quite a few places nearby the conference location where you can have a light lunch. The smaller places are on Corso Stati Uniti, Corso Vittorio, and the roads nearby. We list also three larger venues: the price we indicate refers to a light lunch (typically: one dish, beverages, coffee). Obviously, depending on what you get and how many dish you order, the price can go up (or down) considerably.

- *Bar Galleria Arte Moderna* Corso Galileo Ferraris 30. A cafeteria in the Modern Art Museum (GAM) across the street from the conference location. It seats up to 100 people. (You don't have to get into the museum to get to the cafeteria.) Cost: €7.
- *Pizzeria Amici Miei* corso V. Emanuele 94 (Tel. 011-5069961), about 5 minutes from the conference. They serve pizza or other dishes and can seat up to 210 people. Closed on Saturday. Cost: €7.

- *Brek Ristorante* piazza Carlo Felice, 22 (Tel. 011-548033), about 12 minutes. It is a huge self-service restaurant with a large selection of items. Cost: €5 up.

Reception On Monday 26, from 20:00 on there will be a reception in the garden of the Conference Location.

Excursion On Thursday afternoon, July 29th, there will be the social excursion. There are two (mutually incompatible) choices:

- Visit to the *Sacra di San Michele* and Abbey of *Sant'Antonio di Ranverso*. These are abbeys dating from the 10th century (or earlier) placed at the beginning of the *Valle di Susa*, close to the Alps. (Guided tour with an English-speaking guide).
- Visit of the baroque center of Torino and of the *Egyptian Museum*. Although the first settlement in Torino dates back to the Roman times (*Augusta Taurinorum*) most of its urban development dates from the 17th and 18th century. We will visit some of the most important buildings and then visit the Egyptian Museum, the most important collection of ancient Egyptian items outside Egypt. (Guided tour with an English-speaking guide).

The cost of each excursion is €30.

Social dinner The social dinner will be held on Friday evening, July 20th, at the *Ristorante Al Castello* in Santa Vittoria D'Alba. Santa Vittoria is a charming village in the *Langhe*, a region well renowned for its wines: Barbera, Barolo, Dolcetto, Nebiolo. We will leave by bus at 18:10 (sharp!) from the Conference Location. The cost of the social dinner is €30.

Accompanying persons' program The accompanying persons will receive the museum card which gives free access to many civic museums.

Tuesday, July 27 Meeting point: piazza Castello, in front of the Teatro Regio, at 9:30. Walking down via Po we will reach the *Mole Antonelliana*, guided visit of the *Museo del Cinema*, then reach Piazza Gran Madre. Total time: 3 hrs.

Wednesday Meeting point: piazza Carignano near the monument at 9:30. Visit of the historical center of the city and of the Egyptian Museum. Total time: 3 hrs.

Picture A picture of the Conference Participants will be taken in the garden on Friday, July 30th, at 12:25, right after Kechris and Solecki's Tutorial.

Phone numbers In case of emergency you can reach Alessandro Andretta at 338-1874119 or Domenico Zambella at 340-5441936.

Leisure

Caffè In Torino you will find lots of *caffè* (coffee houses) where you can drink espresso or cappuccino, have a *croissant* for breakfast or an aperitif before dinner. An espresso served at the counter is about €0.85, but could be much more if you want to sit. Aperitifs vary quite a bit in price.

Historic cafés Coffee houses were the traditional gathering places where the protagonists of the Italian Risorgimento discussed politics, artists met and the bourgeoisie talked business. Today, too, many historic *caffè* still conserve their original furnishings and heady atmosphere of animated conversation. The barman will fix to order not just a cup of coffee but an entire range of variations on the bean–espresso, ristretto, macchiato con latte o panna, cappuccino, marocchino, caff freddo, or a tempting *bicerin*, a specialty made with coffee, chocolate and creme.

Al Bicerin, Piazza della Consolata 5 (Tel. 011-4369325). The oldest, smallest, pastry and coffee house in Torino. Their specialty of the house is the *bicerin*, a chocolate beverage mixed with coffee, hot bitter chocolate and milk cream. Don't leave town without having tried it. Closed on Monday.

Baratti e Milano, Piazza Castello 29 (Tel. 011-5613060). Located at the entrance to the Galleria Subalpina, this caffè conserves the elegance of *fin de siècle* atmosphere and is the perfect stopover for an aperitif. The refined restaurant serves lunch from 12:30 to 14:30.

Caffè Elena, Piazza Vittorio Veneto 5 (Tel. 011-8123341). This historic caffè once was the haunt of the writer Cesare Pavese and the philosopher Friedrich Nietzsche. Tables are set under the porticoes with a view of the square. Besides its well-stocked wine cellar, this popular caf offers a wide selection of aperitifs and appetizers. Closed on Wednesday.

Caffè San Carlo, Piazza San Carlo 204 (Tel 011-545118). The first Italian caf to use gaslight that illuminated the rich plasterwork and statues decorating the rooms. At the time, chroniclers called it "a palace", where Risorgimento patriots and statesmen met. Bar service. outdoor caf.

Mulassano, Piazza Castello 15 (Tel 011-547990). Established at the turn of the century, it was popular with the nobility from the royal court and the artists from the nearby Teatro Regio. An ideal place for a cup of coffee or hot cocoa and a look at the beautiful wood and marble furnishings. Its original owner created sandwiches that eventually made his establishment famous.

Fiorio, Via Po 8 (Tel. 011-88173225). Established in 1780, the caffè was popular with artists and politicians such as Rattazzi, D'Azeglio and Cavour. Nicknamed *cafè of the pigtails*, it was also frequented by gentlemen aristocrats and high military officers during the 1800s. The rooms still conserve the elegance of times past. Light lunch also served. It is also one of the best ice-creams parlors in Torino. Closed on Monday.

Platti, Corso Vittorio Emanuele II 72 (Tel. 011-5069056). Established in 1875, this caffè has conserved its original furnishings. Pavese and Einaudi were frequent guests, and today's clientele still draws from the city's upper classes. Light lunch with fixed menu is served from 12:00 to 14:30 and dinner is served *à la carte* from 19:30 to 24:00.

Caffè Torino, Piazza San Carlo 204 (Tel. 011-545118)?One of the city's most elegant gathering places, with outdoor tables under the 17th century porticoes surrounding the square. The elegant interior decor dates from the turn of the century. Light lunch served.

Confetteria Stratta, Piazza San Carlo 191 (Tel. 011-547920).?Established in 1836, the confectionery made by Stratta is famous in Italy. Its show windows display the traditional products of piedmontese confectionery. Favorites include caramels, gianduiotti and filled chocolates. No bar service.

Confetteria Avvignano,Piazza Carlo Felice 50 (Tel. 011-541992).?Typical Turin confectionery shop established in 1883, beautifully decorated with lacquered and golf leaf furnishings dating from 1926. A wide variety of choice products such as "Droneresi" (meringue filled with rum-flavored chocolate) and "Baci di Cherasco" (bitter chocolate filled with hazelnut creme). No bar service.

Aperitifs An enjoyable moment for meeting and socializing. The aperitif is a welcome occasion for tasting some of the fine local products, typical among which is vermouth. You can try it in various versions, accompanied by savory *hors d'oeuvres*, and best taken seated in an outdoor caf, while watching busy crowds pass by.

Bar Barolino Cocchi, Via Bonelli 16/C (Tel. 011-4367245). Tucked into the former foyer Juvarra designed for a 16th century palace, this intimate caf is ideal for enjoying an aperitif American style with white or red vermouth or Barolo Chinato (containing cinchona) and accompanied by savory tarts and appetizers. Outdoor tables.

Bar Norman,Via Pietro Micca 22 (Tel. 011-540854). Elegant caffe-patisserie facing Piazza Solferino. Restaurant service on first floor. Choice range of appetizers (savory millefeuille, warm tarts and canaps) served at the cocktail hour. Outdoor tables under the porticoes along Via Pietro Micca.

Caff Roberto, Via Po 5 (Tel. 011-8177665). Pleasant atmosphere enlivened by the young crowd. At the cocktail hour the fare includes hot appetizers, bagna caôda, pasta and a vast range of canapés.

Lab, Piazza Vittorio Veneto 13,(Tel. 011-8170669). A nice, trendy bar were young people hang out. Cocktails and long-drinks are their specialty.

Restaurants

Besides the places indicated in the section **Lunch breaks**, we list here a few more places. The selection is far from being comprehensive and it is admittedly very biased, according to the taste of (some of) the Organizers. For more suggestions see the website http://www.extratorino.it/ENG/

Ethnic

Kirkuk Kaffé, via Carlo Alberto 16 (Tel. 011-530657). A nice place serving Kurdish dishes. Closed on Sunday. Cost: €15

El-Mir, piazza Corpus Domini 17 (Tel. 011-562449). Lebanese cuisine. Closed on Sunday. Cost: €25

Mister Hu, via Mercanti 16 (Tel. 011 537171). One of the best places for sushi and tempura in town. Cost: €20.

Vegetarian

Il Punto Verde via S. Massimo, 17 (Tel. 011-885543). Vegan dishes available. Cost: €20

Typical piedmontese cuisine

Le tre galline, via Bellezia 37 (Tel. 011-4366553). One of the oldest restaurants in Torino. Cost: €35 up

Trattoria della Posta, Strada Mongreno 16 (Tel. 011-8980193). Specialized in cheese dishes. Closed on Monday. Cost: €25 up

Savoia, Via Corte d'Appello 13 (Tel. 011-4362288). A very classy restaurant with excellent choice of wines. Cost: €40 up

Places to hang-out

Quadrilatero romano is the area (roughly) delimited by via della Consolata, via Milano, via Corte D'Appello, and Piazza Emanuele Filiberto. In recent years has become one of the liveliest spots in town, packed with restaurants and caffè.

Murazzi. ?Heading the list of Turin's night spots are the Murazzi, the great sustaining walls along the banks of the River Po, below Piazza Vittorio Veneto. Here you will find some of the most fashionable places as well as galleries of alternative art. They are not the usual discos, but rather disco-pubs where you can dance or just sip a cocktail. The Turinese flock here, especially in the summer, and—naturally—after midnight!

Docks Dora is another popular place for Turin's nightlife, situated along the railway line to Milan. In an evocative, early 20th-century industrial complex, which once housed warehouses for sorting goods, a number of studio-workshops for young artists and architects and a number of alternative shops and nightclubs have been created.

Museums

Armeria Reale, Piazza Castello 191 (Tel. 011-5184358). One of the world's best collections of arms and armors.

Castello e Borgo medioevale, Parco del Valentino - viale Virgilio (Tel. 011-4431701). Reconstruction of a medieval village built for the 1884 Italian General Exhibition.

Fondazione Palazzo Bricherasio, Via Lagrange, 20 (Tel. 011-5171660). Temporary exhibitions of modern art. `www.palazzobricherasio.it`.

Galleria Sabauda, Via Accademia delle Scienze 6 (Tel. 011-547440). One of the richest collections of Italian painting from the 14th to the 18th century.

GAM, Via Magenta 31 (Tel. 011-5629911). Over 15,000 works comprising paintings, sculptures, installations and photographs from the 18th century to the present. `www.gamtorino.it`.

Museo Civico Pietro Micca, Via Guicciardini 7/a (Tel. 011-546317). A defense network of underground passages and memorial to the patriot Pietro Micca.

Museo di Antichità, Via XX Settembre 88/c (Tel. 011-5211106). Archeological collections from prehistory to the early middle ages.

Museo Egizio, Via Accademia delle Scienze 6 (Tel. 011-5617776). Egyptian museum, second only to Cairo's museum in importance.
`www.multix.it/museoegizio_to`.

Museo Nazionale del Cinema, Via Montebello 20 (Tel. 011-8125658). Housed in Torino's landmark, the Mole Antonelliana, the museum's collections are exhibited on five levels.

Museo Nazionale del Risorgimento, Via Accademia delle Scienze 5 (Tel. 011-5621147). Located in Palazzo Carignano, a work of Guarini, the museum contains the original Chamber of Deputes of the first Italian Parliament. `www.regione.piemonte.it/cultura/risorgimento`.

Palazzo Reale, Piazza Castello (Tel. 011-4361455). Magnificent Savoy residence designed by Filippo Juvarra in 1646 and set in landscaped gardens. `www.ambienteto.arti.beniculturali.it`.

Accademia Albertina di Belle Arti, Via Accademia Albertina 8 (Tel. 011-8177862). Paintings from the school of Caravaggio and Flemish artists from the 15th to the 18th century.

	Mon 26	Tue 27	Wed 28	Thu 29	Fri 30	Sat 31
9:00–10:00	Opening	Valeriote	Willard (tutorial)	Willard (tutorial)	Tamburrini	Willard (tutorial)
10:00–11:00	Mints	Scanlon (tutorial)	Scanlon (tutorial)	Bartoszynski	Scanlon (tutorial)	Berarducci
11:20–12:20	Solomon (tutorial)	Solomon (tutorial)	Kechris Solecki (tutorial)	Solomon (tutorial)	Kechris Solecki (tutorial)	Kechris Solecki (tutorial)
12:20				Excursion		
14:00–14:20			Contribution			
14:20–15:20	Marcone	Special Sessions	Contribution Contribution Contribution		Special Sessions	Baldwin
15:20–16:20	Stephan	Special Sessions	Contribution Contribution Contribution		Special Sessions	Woodin
16:40–17:40	Möllerfeld	Contribution Contribution Contribution	Contribution Contribution Contribution		Contribution Contribution Contribution	
17:40–18:40	Sundholm	Contribution Contribution Contribution	Contribution Contribution Contribution		(until 18:00) Dinner	
18:40–19:40		Contribution Contribution Contribution	Contribution Contribution Contribution			
20:10–22:00		Panel Discussion				
20:20	Reception					

Monday 26

Morning	
8:40–9:20	**Registration**
9:30–10:00	**Opening Ceremony**
	Planary Talks, Sala Agnelli
10:00–11:00	Plenary Lecture: **Grigori Mints** (Stanford) *Intuitionistic Frege systems are polinomially equivalent*
11:00–11:20	Coffee break
11:20–12:20	Tutorial: **Reed Solomon** (Storrs) *Computable algebra*
12:20–14:20	Lunch break
Afternoon	**Planary Talks, Sala Agnelli**
14:20–15:20	Plenary Lecture: **Alberto Marcone** (Udine) *Logical aspects of wqo theory*
15:20–16:20	Plenary Lecture: **Frank Stephan** (Singapore) *Kolmogorov complexity*
16:20–16:40	Coffee break
16:40–17:40	Plenary Lecture: **Michael Möllerfeld** (Bonn) *On the proof of* Π^1_2*-comprehension*
17:40–18:40	Plenary Lecture: **Göran Sundholm** (Leiden) *The MET-Alinguistic turn*
Evening	**Reception**
20:00–22:30	Welcome reception in the garden of the Conference Location.

Tuesday 27

Morning	**Planary Talks, Sala Agnelli**
9:00–10:00	Plenary Lecture: **Matthew Valeriote** (Hamilton) *The constraint satisfaction problem and universal algebra*
10:00–11:00	Tutorial: **Thomas Scanlon** (Berkeley) *Geometric stability theory*
11:00–11:20	Coffee break
11:20–12:20	Tutorial: **Reed Solomon** (Storrs) *Computable algebra*
12:20–14:20	Lunch break
Afternoon	**Special Sessions**
	Proof Theory, Sala Agnelli
14:20–15:20	**Anton Setzer** (Swansea) *Universes in Type Theory: Mahlo and* Π_3*-Reflection.*
15:20–16:20	**Andrea Cantini** (Firenze) *Classifications, operations and (constructive) sets*
	Model Theory, Sala Torino
14:20–14:50	**Tomašić** (Lyon) *Probabilistic independence theorem in pseudofinite fields*
14:50–15:20	**Xavier Vidaux** (Oxford) *The analogue of Büchi's problem in polynomial rings*
15:20–15:40	**Alexander Berenstein** (Urbana) *Probability spaces with a generic automorphism*
15:40–16:20	**Tamara Servi** (Pisa) *On the decidability of the real exponential field: candidates for a complete axiomatization*
	Universal Algebra, Sala Torino
14:20–14:50	**Paolo Aglianò** (Siena) *Basic-algebras: an overview*
14:50–15:20	**Vera Vértesi** (Budapest) *Checking equations in finite algebras*
15:20–15:40	**Steve Givant** (Oackland) *Interconnections between groups and algebras of relations*
15:40–16:20	**Benoit Larose** (Montréal) *Some results on the complexity of strong colourings of hypergraphs with fixed symmetry*
16:20–16:40	Coffee break.
	Contributed papers
16:40–18:20	Contributed papers sessions in rooms Sala Agnelli, Sala 200, Sala Torino, Sala Piramide, Sala Consiglio, see the next page.
18:20–18:25	Break
	Contributed papers sessions
18:25–19:45	Contributed papers sessions in rooms Sala Agnelli, Sala 200, Sala Torino, Sala Piramide, Sala Consiglio, see the next page.

19:45–20:10	Aperitif
Evening	**Panel Discussion, Sala 200**
20:10–22:00	Panel Discussion: *Kant's legacy for the philosophy of logic.* Panelists: **Mirella Capozzi** (Roma), **Cesare Cozzo** (Roma), **Riccardo Pozzo** (Verona). Moderator: **Dag Prawitz** (Stockholm).

	Sala G.Agnelli	Sala 200	Sala Torino	Sala Piramide	Sala del Consiglio
16:40	Semenova, *Embedding lattices into convex geometries*	Hirschorn, *On iterated (proper) forcing without adding reals*	Berardi, *Classical arithmetic as solution of a maximum problem*	Dobrinen, *Almost everywhere domination*	Ehrlich, *The rise of non-archimedean mathematics and the roots of a misconception*
17:00	Barbina, *Reconstruction of classical geometries from their automorphism group*	Kanovei, *Fully saturated extensions of standard universe*	Robles, *Converse Ackermann property and constructive negation defined with a negation ...*	Giorgi, *A high noncuppable enumeration degree*	Bruni, *A note on Gödel's philosophy of mathematics in the light of his* Nachlass
17:20	Darniere, *Model-com-pletion of scaled lattices*	Di Nasso, *Different paths to nonstandard analysis*	Schreiner, *Automatical recognition of the pretabularity and tabularity in ...*	Podzorov, *Rogers semilattices of arithmetical numberings*	Meyer, *Boole bites back*
17:40	Guzy, *Topological differential structures*	Kurilić, *Ultrafilters in models of set theory*	Chubaryan, *On the proofs complexity in the resolution systems of intuitionistic and ...*	Puzarenko, *On computability in structures*	Akıncı, *David Lewis's counterpart theory*
18:00	Kontinen, *On definability of second order generalized quantifiers*	Yorioka, *Gap spectra under Martin's axiom*	Kretz, *Deduction chains for logic of common knowledge*	Stukachev, *On structures decidable in admissible sets*	da Silva, *On the principle of excluded middle*

	Sala G.Agnelli	Sala 200	Sala Torino	Sala Piramide	Sala del Consiglio
18:25	Belegradek, *Collapse under total independence*	Bosch, *Definably large cardinals*	Mostowski, *Arithmetic of coprimality in finite models*	Frolov, *Computable copies of distributive lattices with relative complements and linear ...*	Ronzitti, *On the philosophy of intuitionistic mathematics*
18:45	Engström, *Notions of resplendency for logics stronger than 1st-order logic*	Vuksanovic, *A canonical partition theorem for trees*	Paśniczek, *A useful reformulation of first-order classical logic*	Alaev, *Strongly computable Boolean algebras*	Faas, *Visual and heterogeneous inferences*
19:05	Krupiński, *A special thin type*	Koenig, *Partial orderings with dense subtrees*	Libert, *Topological solutions to the Fregean problem and their corresponding AST*	Kogabaev, *Computable lists of I-algebras and complexity of some problems*	Urtubey, *Vagueness, logic and information processing*
19:25	Mudrinski, *Some results on endomorphism monoids of countable homogeneous graphs*	Irrgang, *Higher-gap morasses and morass constructions*		Henk, *A qualitative approach to the Church-Turing thesis*	Pallares Vega, *Model theory and philosophy of language*
19:45					

Wednesday 28

Morning	**Plenary Talks, Sala Agnelli**
9:00–10:00	Tutorial: **Ross Willard** (Waterloo) *An overview of modern universal algebra*
10:00–11:00	Tutorial: **Thomas Scanlon** (Berkeley) *Geometric stability theory*
11:00–11:20	Coffee break
11:20–12:20	Tutorial: **Alexander Kechris** (Pasadena) & **Sławomir Solecki** (Urbana) *Logic and dynamical systems*
12:20–14:20	Lunch break
Afternoon	**Contributed Papers**
14:00–16:20	Contributed papers sessions in rooms Sala Agnelli, Sala 200, Sala Torino, Sala Piramide, Sala Consiglio, see the next page.
16:20–16:40	Coffee break
16:40–18:20	Contributed papers sessions in rooms Sala Agnelli, Sala 200, Sala Torino, Sala Piramide, Sala Consiglio, see the next page.
18:20–18:25	Break
18:25–19:45	Contributed papers sessions in rooms Sala Agnelli, Sala 200, Sala Torino, Sala Piramide, Sala Consiglio, see the next page.

	Sala G.Agnelli	Sala 200	Sala Torino	Sala Piramide	Sala del Consiglio
14:00	Kysiak, *Nonmeasurable algebraic sums of sets of reals*		Hosni, *Rationality as conformity*	Galatos, *Translations in substructural logic*	Tulenheimo, *Independence-friendly modal logic*
14:20	Kraszewski, *On some properties of ideals on the Cantor space*	von Plato, *Consistency of arithmetics through sequent calculus in ND style*	Monteleone, *Thoughts in the age of computer science*	Weiermann, *Does (concrete) mathematics matter to Gödel's theorem?*	Naumov, *On modal logic of deductive closure*
14:40	Marco, *Invariant model theory and automorphism group actions*	Zimmermann, *Natural deduction with single assumptions*	Surowik, *The different methods of rejection of the thesis of determinism in temporal logic systems*	Lee, *Kanamori-McAloon principle and the fast growing Ramsey functions*	Gencer, *Unification and passive inference rules for the modal logic $K4$*
15:00	Pauna, *On pressing down game and Banach–Mazur game*	Tesconi, *A SN theorem for natural deduction with general elimination rules*	Arrigoni, *What's the problem with V?*	Bovykin, *Several proofs of PA-unprovability*	Gheerbrant, *Recursive complexity of L-modal logic*
15:20	Zoli, *On Schmidt's σ-ideal*	Andou, *A representation of essential reductions in sequent calculus*	Hauser, *The philosophical roots of cantorian set theory*	Wilken, *Characterizing closure properties of ordinals*	Negri, *A uniform CE theorem for contraction-free systems of modal logic*
15:40	Bold, *AD and Descriptions for cardinals below Θ*	Font, *New forms of the deduction theorem and modus ponens*	Bellotti, *The problem of consistency: ZF and large cardinals*	Heinatsch, *The determinacy strength of Π^1_2 comprehension*	Rybakov, *First-order theories of free temporal algebras*
16:00	Pinsker, *Set theory in infinite clone theory*	Brage, *A natural interpretation of classical proofs*	Zach, *Gödel's 1st incompl. th.m and Detlefsen's Hilbertian instrumentalism*	Duchhardt, *Reflection vs thinning*	Lenzi, *Axiomatizing bisimulation quantifiers*
16:20					

	Sala G.Agnelli	Sala 200	Sala Torino	Sala Piramide	Sala del Consiglio
16:40	Walczak-Typke, *Algebraic structures in set theory without AC*	Kun, *On the fundamental group of finite posets*	Amirzadeh, *Process capability in fuzzy quality control*	Arai, *Proofs of the termination of rewrite rules for polytime functions*	Crosilla, *On constructing completions*
17:00	Usvyatsov, *Categoricity in complete metric spaces*	Horváth, *Identities of finite groups*	Millington, *Mathematical foundations in a λ calculus extension of Łukasiewicz logic*	Moser, *A note on Cichon's principle*	Thiel, *Mahlo & Veblen*
17:20	Toffalori, *Superdecomposable pure injective modules over integral group rings*	Grech, *The automorphisms of the lattice of equational theories of commutative semigroups*	Buşneag, *Localization for some algebras of fuzzy logic*	Beltiukov, *Polynomial time programming language*	Berger, *Unique existence theorems in constructive analysis*
17:40	L'Innocente, *Minimalities and modules over rings related to Dedekind domains*	Markovic, *Star-linear varieties of groupoids*	Běhounek, *Extensional set equality over Gödel logic*	Hoogewijs, *Formath: higher-order logic revised*	Maietti, *Relative topology in constructive mathematics*
18:00	Rivière, *Dimension function in the theory of closed ordered differential fields*	Tasić, $HSP \neq SHPS$ *for commutative rings with identity*	Horčík, *Strong standard completeness of* ΠMTL	Gentilini, *Critical deduction chains and inferential models for type theory*	Bilkova, *A computational view of intuitionistic propositional proofs*
18:25	Pierce, *Fields of any characteristic with operators*	Venema, *McNeille completions of lattice expansions*	Cintula, *Towards universal fuzzy logic*	Kullmann, *The combinatorics of negation patterns*	Aghaei, *A lambda calculus for basic propositional logic*
18:45	Petrykowski, *Coverings of groups*	Ploščica, *Uniform refinement properties in distributive semilattices*	Jerabek, *Bounded arithmetic in 3-valued logic*	Rodenburg, *Partial operations and the specification of the stack*	Ardeshir, *Basic arithmetic*
19:05	Majcher, *Absolutely ubiquitous groups*	Mirek, *Local Finiteness and substructural algebras*	Maleki, *An algorithm for solving multiobjective linear programming*	Abdallah, *An algebraic approach to commonsense reasoning*	Schuster, *The projective spectrum as a distributive lattice*
19:25	Khisamiev, *Quasiresolvable periodic Abelian groups*	McKenzie, *Finite decidability and generative complexity in equational classes*		Skvortsov, *An extension of quantified Dummett's logic complete w.r.t. Kripke sheaves*	
19:45					

Thursday 29

Morning	**Plenary Talks, Sala Agnelli**
9:00–10:00	Tutorial: **Ross Willard** (Waterloo) *An overview of modern universal algebra*
10:00–11:00	Plenary Lecture: **Tomek Bartoszynski** (Boise) *Measure and category from a set-theoretic viewpoint*
11:00–11:20	Coffee break
11:20–12:20	Tutorial: **Reed Solomon** (Storrs) *Computable algebra*
12:20–14:20	Lunch break
Afternoon	**Excursion**
14:00	Meeting point: at the entrance of the conference location.

Friday 30

Morning	**Plenary Talks, Sala Agnelli**
9:00–10:00	Plenary Lecture: **Guglielmo Tamburrini** (Pisa) *Computation and the explanation of intelligent behaviours: ethologically motivated restart*
10:00–11:00	Tutorial: **Thomas Scanlon** (Berkeley) *Geometric stability theory*
11:00–11:20	Coffee break
11:20–12:20	Tutorial: **Alexander Kechris** (Pasadena) & **Sławomir Solecki** (Urbana) *Logic and dynamical systems*
12:25	Please meet in the garden for the Conference picture.
12:20–14:20	Lunch break
Afternoon	**Special Sessions, Sala Agnelli, Sala 200, Sala Torino**
	Proof Theory, Sala Agnelli
14:20–15:20	**Alan Woods** (Crawley) *Probability limit laws for ordinal numbers*
15:20–16:20	**Robert Lubarsky** (Boca Raton) *On the independence of variants of Power Set under IZF−Power Set*
	Model Theory, Sala 200
14:20–14:50	**Raf Cluckers** (Paris) *Ax-Kochen-Ershov principles for integrals over local fields*
14:50–15:20	**Monica VanDieren** (Ann Arbor) *Shelah's Categoricity Conjecture for tame abstract elementary classes*
15:20–15:40	**Karim Zahidi** (Paris) *Elimination theory for addition and Frobenius in certain rings of positive characteristic*
15:40–16:20	**Matthias Aschenbrenner** (Chicago) *Faithfullly flat Lefschetz extensions*
	Universal Algebra, Sala Torino
14:20–14:50	**Paolo Lipparini** (Roma) *Tolerance intersection properties*
14:50–15:20	**Erhard Aichinger** (Linz) *The variety of near-rings is generated by its finite members*
15:20–15:40	**Lászlo Zádori** (Szeged) *Bounded width problems and algebras*
15:40–16:20	**Miklós Maróti** (Vanderbilt) *Finite basis problems and results for quasivarieties*
16:20–16:40	Coffee break
	Contributed Papers
16:40–17:40	Contributed papers sessions in rooms Sala Agnelli, Sala 200, Sala Torino, Sala Piramide, Sala Consiglio, see the next page.
18:10	We meet in front of the Conference Location and leave by bus for the restaurant *Al Castello.*

	Sala G.Agnelli	Sala 200	Sala Torino	Sala Piramide	Sala del Consiglio
16:40–17:00	D'Aquino, *Quadratic reciprocity law in weak fragments of PA*	Kozik, *A finite algebra with PSPACE-hard membership problem and at least ...*	Costantini, *Consistent examples about extensions of continuous functions*	Parlamento, *Truth in V for $\exists^*\forall\forall$-sentences is decidable*	Arabpour, *Fuzzy linear regression model with numerical input and fuzzy output*
17:00–17:20	Wencel, *A genaralization of o-minimality for expansions of Boolean algebras*	Delić, *Finite decidability of locally finite varieties*	Panti, *Substitutions as dynamical systems*	Kisielewicz, *A new solution to old paradoxes*	Nehi, *A canonical representation for the solution of fuzzy linear systems ...*
17:20–17:40	Leonesi, *On The boolean algebras of definable sets in weakly o-minimal theories*	Nurakunov, *On lattices of varieties of algebras*	Lyaletsky, *On types of continuity defined by partially ordered sets ...*	Denisov, *Successful modification of the nuclear theory*	Baaz, *Axiomatizability of first-order Gödel logics*

Satuday 31

Morning	**Plenary Talks, Sala Agnelli**
9:00–10:00	Tutorial: **Ross Willard** (Waterloo) *An overview of modern universal algebra*
10:00–11:00	Plenary Lecture: **Alessandro Berarducci** (Pisa) *Definable groups in o-minimal structures*
11:00–11:20	Coffee break
11:20–12:20	Tutorial: **Alexander Kechris** (Pasadena) & **Sławomir Solecki** (Urbana) *Logic and dynamical systems*
12:20–14:20	Lunch break
Afternoon	**Plenary Talks, Sala Agnelli**
14:20–15:20	Plenary Lecture: **John Baldwin** (Chicago) *Quasiminimal sets and categoricity in abstract elementary classes*
15:20–16:20	Plenary Lecture: **Hugh Woodin** (Berkeley) *Extender models and the inner model problem for supercompact cardinals and beyond*
16:20–16:30	**Closing**