

# Preliminary programme

## FroCoS/ITP/TABLEAUX 2025 preliminary programme

Sat 27 Sept	Rocq	TABLEAUX
9-1030	Rocq1	Tbl1 Jens Classen and Torben Braüner. A Tableau System for First-Order Logic with Standard Names Tadeusz Litak and Katsuhiko Sano. Bounded inquisitive logics: Sequent calculi and schematic validity Vitor Rodrigues Greatei, Sérgio Marcelino, Miguel Muñoz Pérez and Umberto Rivieccio. Analytic calculi for logics of indicative conditionals
11-1230	Rocq2	Tbl2 Agata Ciabattoni, Timo Lang and Revantha Ramanayake. Analytic Proofs for Tense Logic Rajeev Goré and Cormac Kikkert. Improved Decision Procedures for Multimodal Tense Logic Using CEGAR-Tableaux Johannes Kloibhofer, Valentina Trucco Dalmas and Yde Venema. Interpolation for Converse PDL
14-1530	Rocq3	Tbl3 Julia Butte and André Platzer. Semi-Competitive Differential Game Logic Yli Buzoku and David Pym. Base-extension Semantics for Intuitionistic Modal Logics Niels Voorneveld. Forward Proof Search for Intuitionistic Multimodal K Logics
16-1730	Rocq4	Tbl4 Tiziano Dalmonte and Marianna Girlando. A Proof-Theoretic View of Basic Intuitionistic Conditional Logic Lide Grotenhuis and Bahareh Afshari. Intuitionistic mu-calculus with the Lewis Arrow Sonia Marin and Paaras Padhiar. Justification Logic for Intuitionistic Modal Logic
Sun 28 Sept	ITP	TABLEAUX
11-1230	ITP1 Hanna Lachnitt, Mathias Fleury, Haniel Barbosa, Andrew Reynolds, Jibiana Jakpor, Bruno Andreotti, Clark Barrett, Hans-Jörg Schurr, Cesare Tinelli. Improving the SMT Proof Reconstruction Pipeline in Isabelle/HOL Ghilain Bergeron, Florent Krasnopol, Sophie Tourret. Formalizing Splitting in Isabelle/HOL Martin Desharnais, Jasmin Blanchette. Sledgehammering without ATPs (short paper 20 min)	Tbl5 Raheleh Jalali. Skolemization Beyond Intuitionistic Logic: The Role of Quantifier Shifts Victor Barroso-Nascimento, Ekaterina Piotrovskaya and Elaine Pimentel. A Sequent Calculus Perspective on Base-Extension Semantics
14-1530	ITP2 Laura Titolo. Taming Floating-Point Rounding Errors with Proofs Robert Krebbers, Luko van der Maas, Enrico Tassi. Inductive Predicates via Least Fixpoints in Higher-Order Separation Logic	Tbl6 Kaustuv Chaudhuri, Arunava Gantait and Dale Miller. Designing a Safe Forward Chaining Tactic Using Productive Proofs Matteo Acclavio and Lutz Straßburger. Intuitionistic BV Niccolò Veltri and Cheng-Syuan Wan. An Agda Formalization of Nonassociative Lambek Calculus and Its Metatheory
16-18	ITP3 Burak Ekici, Tadayoshi Kamegai, Nobuko Yoshida. Formalising Subject Reduction and Progress for Multiparty Session Processes Eliane Li, Thomas Wies. Certified Implementability of Global Multiparty Protocols Magnus Myreen, Mario Carneiro. GOL in GOL in HOL: Verified Circuits in Conway's Game of Life Rafel Castro G. Silva, Laouen Fernat, Dmitriy Traytel. Nondeterministic Asynchronous Dataflow in Isabelle/HOL	Tbl7 Anupam Das and Abhishek De. Cyclic System for an Algebraic Theory of Alternating Parity Automata Niklas Heidler and Reiner Hähnle. A Sequent Calculus for Trace Formula Implication Clemens Eisenhofer, Theodor Seiser, Laura Kovács and Nikolaj Bjørner. On Solving String Equations via Powers and Parikh Images Business meeting
Mon 29 Sept	ITP	TABLEAUX - FroCoS
9-1030	ITP4 Dohan Kim. An Isabelle/HOL Formalization of Semi-Thue and Conditional Semi-Thue Systems Reynald Affeldt, Alessandro Bruni, Cyril Cohen, Pierre Roux, Takafumi Saikawa. Formalizing Concentration Inequalities in Rocq: Infrastructure and Automation Nadeem Abdul Hamid. Towards Automating Permutation Proofs in Coq: A Reflexive Approach with Iterative Deepening Search (short paper 20 min)	Tbl8 Mauro Ferrari, Camillo Fiorentini and Ricardo Oscar Rodriguez. A Gödel modal logic over witnessed crisp models Renato Leme, Carlos Olarte, Elaine Pimentel and Marcelo Esteban Coniglio. The Modal Cube Revisited: Semantics without Worlds Kiana Samadpour Motalebi, Renate A. Schmidt and Cláudia Nalon. Refined Tableau Systems for Some Modal Logics of Confluence
11-1230	ITP5 Jeremy Thibault, Joseph Lenormand, Catalin Hritcu. Nanopass Back-Translation of Call-Return Trees for Mechanized Secure Compilation Proofs Sage Binder, Eric Ren, Katherine Kosaian. Formalizing the Hidden Number Problem in Isabelle/HOL David Knothe, Oliver Bringmann. On Verifying Secret Control Flow Elimination	Tbl9 Borja Sierra Miranda, Sebastijan Horvat and Thomas Studer. Non-Wellfounded Proof Theory for Interpretability Logic Clemens Eisenhofer, Michael Rawson and Laura Kovács. Finding Connections via Satisfiability Solving Michael Rawson, Clemens Eisenhofer and Laura Kovács. Constraint learning for non-confluent proof search
14-15	ITP6 Joshua M. Cohen. A Mechanized First-Order Theory of Algebraic Data Types with Pattern Matching David Castro Perez, Marco Paviotti, Michael Vollmer. Program Optimisations via Hylo-morphisms for Extraction of Executable Code	Tbl+Fro joint session Kaustuv Chaudhuri. Towards a Universal Interactive Theorem Proving Interface
1530-17	ITP7 Chun Tian, Michael Norrish. Mechanising Böhm Trees and $\lambda\eta$ -Completeness Adrienne Lancelot, Beniamino Accattoli, Maxime Vemcfe. Barendregt's Theory of the Lambda-Calculus, Refreshed and Formalized Zhuo Chen, Johannes Áman Pohjola, Christine Rizkallah. A Verified Cost Model for Call-by-Push-Value	Fro1 Colin Rothgang and Florian Rabe. Subtyping in Dependently-Typed Higher-Order Logic Anela Lolic, Matthias Baaz and Mariami Gamsakhurdia. An Analytic Representation of the Semantics of First-Order S5 Nicolas Peltier, Quentin Petitjean and Mihaela Sighireanu. Deciding Satisfiability for Overlaid Symbolic Heaps
19-2130	Conference dinner	

## Preliminary programme

Tue 30 Sept		ITP	FroCoS	
9-1030	ITP8	Kathrin Stark. Autosubst: On Mechanising Binders in a General-Purpose Proof Assistant	Fro2	Franz Baader and Filippo De Bortoli. The Expressive Power of Description Logics with Numerical Constraints over Restricted Classes of Models
		Jan van Brügge, Andrei Popescu, Dmitriy Traytel. Animating MRBNFs: Truly Modular Binding-Aware Datatypes in Isabelle/HOL		Francesco Kriegel. Reasoning in OWL 2 EL with Hierarchical Concrete Domains
11-1230	ITP9	Mohammad Abdulaziz, Thomas Ammer, Shriya Meenakshisundaram, Adem Rimpapa. A Formal Analysis of Algorithms for Matroids and Greedoids	Fro3	Martin Avanzini and Akihisa Yamada. Weighted Rewriting
		Emin Karayel, Seng Joe Watt, Derek Khu, Kuldeep S. Meel, Yong Kiam Tan. Verification of the CVM Algorithm with a Functional Probabilistic Invariant		Samuel Frontull, Manuel Meitinger and Georg Moser. Data-Driven Runtime Complexity Analysis
14-1530	ITP10	Anshula Gandhi, Anand Rao Tadipatri, Timothy Gowers. Automatically Generalizing Proofs and Statements	Fro4	Carsten Fuhs. Automated Static Program Analysis via Constrained Term Rewriting
		Chase Norman, Jeremy Avigad. Canonical for Automated Theorem Proving in Lean		Naoki Nishida, Misaki Kojima and Yuto Nakamura. Difference of Constrained Patterns in Logically Constrained Term Rewrite Systems
16-1730	ITP11	Business meeting	Fro5	Tanguy Bozec and Jasmin Blanchette. Iterative Monomorphisation
		Community meeting		Daniel Ranalter, Cezary Kaliszyk, Florian Rabe and Geoff Sutcliffe. The Dependently Typed Higher-Order Form for the TPTP World
Wed 1 Oct		ITP	FroCoS	
9-1030	ITP12	Eric Wang, Arohee Bhoja, Cayden Codel, Noah G. Singer. Algebra is Half the Battle: Verifying Presentations for Graded Unipotent Chevalley Groups	Fro6	Parosh Aziz Abdulla, Mohamed Faouzi Atig, Julie Cailler, Chencheng Liang and Philipp Rümmer. When GNNs Met a Word Equations Solver: Learning to Rank Equations
		Lawrence Paulson. Formalising New Mathematics in Isabelle: Diagonal Ramsey		Sören Möller, Florian Bruse and Martin Lange. A Finite Abstraction of Real-Valued Functions for Complete Reasoning about Influence
11-1230	ITP13	Antoine Chambert-Loir, Maria Inés de Frutos-Fernández. A Formalization of Divided Powers in Lean	Fro7	Rodrigo Raya and Christophe Ringeissen. Polite Combination in Parametric Array Theories
		Jonas Bayer, Marco David. A Formal Proof of Complexity Bounds on Diophantine Equations		Benjamin Przybocki, Guilherme Toledo and Yoni Zohar. Refining the many-sorted equivalence of shiny and strongly polite theories
14-1530	ITP14	Arnoud van der Leer, Kobe Wullaert, Benedikt Ahrens. Scott's Representation Theorem and the Univalent Karoubi Envelope	Fro8	Alessio Coltellacci and Stephan Merz. Checking Linear Integer Arithmetic Proofs in Lambdapi
		Stefania Damato, Thorsten Altenkirch, Axel Ljungström. Formalising Inductive and Coinductive Containers		Alberto Griggio, Giulia Sindoni and Stefano Tonetta. Certifying rlive: a New Proof Strategy for Liveness Model Checking
16-18	ITP15	Asta Halkjær From, Anders Schlichtkrull. Abstract, Compositional Consistency: Isabelle/HOL Locales for Completeness à la Fitting		Business meeting
		Ekaterina Zhuchko, Hendrik Maarand, Margus Veanes, G. Ebner. Finiteness of Symbolic Derivatives in Lean		
Thu 2 Oct		Lean		
9-1030	Lean1			
11-1230	Lean2			
14-1530	Lean3			
16-1730	Lean4			