Preliminary programme

FroCoS/ITP/TABLEAUX 2025 preliminary programme (as of 22 Sept, may change)

Sat 27 Sept	Rocq - room M105	TABLEAUX - room M104
9-1030(40)	Rocq 1 Reynald Affeldt. An Overview of MathComp-Analysis and Its Applications (50 mins) Pierre-Emmanuel Wulfman. An Engineer's Self-Taught Journey with the Rocq Proof Assistant (25 mins) [online] Alexandre Jean. A Library for the Automated Transformation of Rocq AST (25 mins) [online]	TABLEAUX 1 Chair: Reiner Hähnle 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 Greati, Sérgio Marcelino, Miguel Muñoz Pérez and Umberto Rivieccio. Analytic Calculi for Logics of Indicative Conditionals
11-1230	Rocq 2 Paolo Torrini and Benjamin Gregoire. Interaction Trees and Verified Compilation Thibaut Benjamin. Generating Higher Identity Proofs in Homotopy Type Theory (25 mins) [online] Takafumi Saikawa, Kazunori Matsuda and Yosuke Tsuji. Formalization of Matching Numbers with finmap and mathcomp-classical	TABLEAUX 2 Chair: Lutz Straßburger 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 [online] Johannes Kloibhofer, Valentina Trucco Dalmas and Yde Venema. Interpolation for Converse PDL
14-1530	Rocq 3 Paolo Torrini and Benjamin Gregoire. Interaction Trees and Verified Compilation Antoine Gontard. Automating Alignments of HOL Light Inductive Types and Recursive Functions in Rocq (25 mins) [online] Tomás Díaz, Kenji MaillardJohann Rosain, Matthieu Sozeau, Nicolas Tabareau, Éric Tanter and Théo Winterhalter. Extending Sort Polymorphism with Elimination Constraints in Rocq (25 mins) [online]	TABLEAUX 3 Chair: Revantha Ramanayake Julia Butte and André Platzer. Semi-competitive Differential Game Logic Yll Buzoku and David Pym. Base-Extension Semantics for Intuitionistic Modal Logics Niels Voorneveld. Forward Proof Search for Intuitionistic Multimodal K Logics
16-1730(45)	Rocq 4 Pierre Corbineau, Basile Gros and Jean-François Monin. Certified Programming with Dependent Types Made Simple with Proxy-based Small Inversions Théo Stoskopf, Jules Viennot and Cyril Cohen. LLM4Docq: Bootstrapping Documentation for MathComp with LLMs and Expert Feedback (25 mins) [online] Jules Viennot, Guillaume Baudart, Emilio Jesus Gallego Arias and Marc Lelarge. MiniF2F in Rocq: Automatic Translation Between Proof Assistants: A Case Study (25 mins) [online] Christopher Mary. HotdocX & jsCoq: A Platform for Interactive, AI-Augmented and Monetizable Coq Experiences (25 mins) [online]	TABLEAUX 4 Chair: Matteo Acclavio 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 - room M105	TABLEAUX - room M104
11-1230	ITP 1 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)	TABLEAUX 5 Chair: Tarmo Uustalu 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	ITP 2 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	TABLEAUX 6 Chair: Anupam Das 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	ITP 3 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 Rafael Castro G. Silva, Laouen Fernet, Dmitriy Traytel. Nondeterministic Asynchronous Dataflow in Isabelle/HOL	TABLEAUX 7 Chair: Niccolò Veltri 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 - room M110	TABLEAUX - room M115
9-1030	ITP 4 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)	TABLEAUX 8 Chair: Marianna Girlando 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	ITP 5 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	TABLEAUX 9 Chair: Carlos Olarte 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
		TABLEAUX + FroCoS - room M209
14-15	ITP 6 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 Hylomorphisms for Extraction of Executable Code	TABLEAUX + FroCoS Chair: Tarmo Uustalu Kaustuv Chaudhuri. Towards a Universal Interactive Theorem Proving Interface
1530-17	ITP 7 Chun Tian, Michael Norrish. Mechanising Böhm Trees and λη-Completeness Adrienne Lancelot, Beniamino Accattoli, Maxime Vemclefs. Barendregt's Theory of the Lambda-Calculus, Refreshed and Formalized Zhuo Chen, Johannes Åman Pohjola, Christine Rizkallah. A Verified Cost Model for Call-by-Push-Value	FroCoS 1 Chair: Elaine Pimentel Franz Baader and Filippo De Bortoli. The Expressive Power of Description Logics with Numerical Constraints over Restricted Classes of Models Francesco Kriegel. Reasoning in OWL 2 EL with Hierarchical Concrete Domains Christian Alrabbaa, Franz Baader, Raimund Dachselt, Alisa Kovtunova and Julián Méndez. The Concrete Evonne: Visualization Meets Concrete Domain Reasoning
19-2130	Conference dinner	

Preliminary programme

Tue 30 Sept	ITP - room M209	FroCoS - room V109
9-1030	ITP 8	FroCoS 2 Chair: Christophe Ringeissen
	Kathrin Stark. Autosubst: On Mechanising Binders in a General-Purpose Proof Assistant	Daniel Ranalter, Cezary Kaliszyk, Florian Rabe and Geoff Sutcliffe. The Dependently Typed Higher-Order Form for the TPTP World
		Anela Lolic, Matthias Baaz and Mariami Gamsakhurdia. An Analytic Representation of the Semantics of First-Order S5
	Jan van Brügge, Andrei Popescu, Dmitriy Traytel. Animating MRBNFs: Truly Modular Binding-Aware Datatypes in Isabelle/HOL	Nicolas Peltier, Quentin Petitjean and Mihaela Sighireanu. Deciding Satisfiability for Overlaid Symbolic Heaps
11-1230	ITP 9	FroCoS 3 Chair: Carsten Fuhs
	Mohammad Abdulaziz, Thomas Ammer, Shriya Meenakshisundaram, Adem Rimpapa. A Formal Analysis of Algorithms for Matroids and Greedoids	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
	Manuel Eberl, Peter Lammich. Verifying an Efficient Algorithm for Computing Bernoulli Numbers	Serdar Erbatur, Andrew M. Marshall, Paliath Narendran and Christophe Ringeissen. Graph Embedded Rewrite Systems: Combination and Undecidability Results
	ITP - room M105	
1430-16 (!)	ITP 10	FroCoS 4 Chair: René Thiemann
	Anshula Gandhi, Anand Rao Tadipatri, Timothy Gowers. Automatically Generalizing Proofs and Statements	Carsten Fuhs. Automated Static Program Analysis via Constrained Term Rewriting
	Chase Norman, Jeremy Avigad. Canonical for Automated Theorem Proving in Lean	
	Johannes Tantow, Lukas Gerlach, Stephan Mennicke, Markus Krötzsch. Verifying Datalog Reasoning with Lean	Naoki Nishida, Misaki Kojima and Yuto Nakamura. Difference of Constrained Patterns in Logically Constrained Term Rewrite Systems
1630-18 (!)	ITP 11	FroCoS 5 Chair: Haniel Barbosa
	Business meeting	Tanguy Bozec and Jasmin Blanchette. Iterative Monomorphisation
	Community meeting	Colin Rothgang and Florian Rabe. Subtyping in Dependently-Typed Higher-Order Logic
		Claudia Schon. Context-Aware Clause Selection Using Symbol Name Meanings in Theorem Proving

Wed 1 Oct	ITP - room M105	FroCoS - room M115
9-1030	ITP 12	FroCoS 6 Chair: Guilherme Toledo
	Eric Wang, Arohee Bhoja, Cayden Codel, Noah G. Singer. Algebra is Half the Battle: Verifying Presentations for Graded Unipotent Chevalley Groups	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
	Peter Koepke. A Natural Language Formalization of Perfectoid Rings in Naproche	Guilherme Toledo and Yoni Zohar. Number Theory Combination: Natural Density and SMT
11-1230	ITP 13	FroCoS 7 Chair: Mathias Fleury
	Antoine Chambert-Loir, Maria Inés de Frutos-Fernández. A Formalization of Divided Powers in Lean	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. Shininess, Strong Politeness, and Unicorns
	Yves Bertot, Thomas Portet. Formally Verifying a Vertical Cell Decomposition Algorithm	Gabriele Masina and Roberto Sebastiani. Exploiting Partial-Assignment Enumeration in Optimization Modulo Theories
14-1530	ITP 14	FroCoS 8 Chair: Kaustuv Chaudhuri
	Arnoud van der Leer, Kobe Wullaert, Benedikt Ahrens. Scott's Representation Theorem and the Univalent Karoubi Envelope	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 [online]
	Mario Carneiro, Emily Riehl. Formalizing colimits in Cat	Business meeting
16-1750	ITP 15	
	Asta Halkjær From, Anders Schlichtkrull. Abstract, Compositional Consistency: Isabelle/HOL Locales for Completeness à la Fitting	
	Ekaterina Zhuchko, Hendrik Maarand, Margus Veanes, G. Ebner. Finiteness of Symbolic Derivatives in Lean	
	Remi Desmartin, Omri Isac, Ekaterina Komendantskaya, Kathrin Stark, Grant Passmore, Guy Katz. A Certified Proof Checker for Deep Neural Network Verification in Imandra	
	Eric Vin, Kyle Miller, Daniel J. Fremont. LeanLTL: A unifying framework for linear temporal logics in Lean (short paper 20 min)	

Thu 2 Oct	Lean - room M117
9-1030	Lean 1
11-1230	Lean 2
14-1530	Lean 3
16-1730	Lean 4

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