	a	date	time	Name	Topic	Optional URL etc.	Slides
		13.-17.5.		**No PFM Seminar**	**School on Formal Mathematics**	https://www.mathematics.uni-bonn.de/him/assets/2024/schedule_school-formal-mathematics_iv.pdf	
Mon		13.5.				https://www.mathematics.uni-bonn.de/him/video-recordings/to_2024_02_school_video/school_on_formal_mathematics	
Tue		14.5.					
Wed		15.5.					
Thu		16.5.					
Fri		17.5.	11:00	Steve Awodey	What is HoTT?	https://awodey.github.io/talks/AwodeyHM2024.pdf	
Tue		21.5.	15:00	James Davenport	Proving an execution of an algorithm correct	https://doi.org/10.1007/978-3-031-42753-4_17_	https://staff.bath.ac.uk/masjhd/Slides/JHDatHIMexCICM.pdf
Wed		22.5.	15:00	Nicolas Thiéry	Categories, axioms, constructions in SageMath: Modeling mathematics for fun and profit		
Thu		23.5.	14:00	Michail Karatarakis	Formalizing Deligne's theorem (Number theory)		
Fri		24.5.	15:00	Andrea Kohlhase	Eye Tracking for Math		
Mo		27.5.	15:00	Reed Mullanix	Cubical Type Theory for the Low-Dimensional Mathematician		
Tue		28.5.	15:00	Emily Riehl	Formalizing ∞-category theory in the Rzk proof assistant	https://emilyriehl.github.io/yoneda/CPP-2024/	https://emilyriehl.github.io/files/yoneda-in-rzk.pdf
Wed		29.5.	15:00	Tom de Jong	Formalization in HoTT: equivalences, 3-for-2 and definitional equality	https://tdejong.wordpress.com/2023/12/08/a-practical-technique-for-proving-that-a-map-is-an-equivalence/	
Thu		30.5.	15:00	no talk	Public Holiday (Fronleichnam = Corpus Christi)		
Fri		31.5.	15:00	Claudio Sacerdoti Coen	Indexing and Retrieval in a heterogeneous Formal Library		
Mo		3.6.	15:00	Chris Lam	Adventures in Correct-by-Construction Proof Engineering		
Tue		4.6.	15:00	Harshit J Motwani	Formal Verification and Synthesis of Polynomial Programs using Algebro-Geometry	https://doi.org/10.1145/3586052	
Wed		5.6.	15:00	Juan Meleiro	Theory-oriented mathematics		
Thu		6.6.	15:00	Milly Maietti and Pietro Sabelli	Peculiarities of the Minimalist Foundation for Formal Mathematics		
Fri		7.6.	15:00	Cipriano Cioffo	A categorical account of the setoid model		
Mo		10.6.	11:00	Kevin Buzzard	Formalizing Fermat I (informal lecture)		
Mo		10.6.	15:00	Sina Hazratpour	Report on Polynomial Functors Formalization	Report on Polynomial Functors Formalization	
Tue		11.6.	11:00	Kevin Buzzard	Formalizing Fermat II (informal lecture)		
Tue		11.6.	15:00	Valeria de Paiva	AI tools for Better Math		https://drive.google.com/drive/folders/0ByQvGrHooOoHR2dHTC1maTFwsW8?resourcekey=0-twfuGQQ4BB6YO_WfA71SXw
Wed		12.6.	11:00	Kevin Buzzard	Formalizing Fermat III (informal lecture)		
Wed		12.6.	15:00	Davide Trotta	Doctrines for Formal Mathematics		
Thu		13.6.	11:00	Kevin Buzzard	Formalizing Fermat IV (informal lecture)		
Thu		13.6.	15:00	Dagur Asgeirsson	Condensed mathematics in Mathlib		
Fr		14.6.	11:00	Kevin Buzzard	Formalizing Fermat V (informal lecture)		
Fr		14.6.	15:00	Sina Hazratpour	Linear Algebra Game in Lean	https://github.com/hhu-adam/Robo/tree/main	
		17.-21.6		**No PFM Seminar**	**Workshop on Formalization of Mathematics**		
Mo		17.6.	9:00		Welcome and Orga		
		17.6.	9:30	van Doorn	Towards a formalized proof of Carleson's theorem		
		17.6.	10:10	Coffee break			
		17.6.	10:40	Farmer	An Alternative Approach to Formal Mathematics that Prioritizes Communication over Certification		
		17.6.	11:20	Benzmüller	Comments on the formalisation and automation of foundational theories from the point of view of LogiKEy		
		17.6.	12:00	Lunch			
		17.6.	13:30	Who am I	All participants present their research/workshop interests in 2 min		
		17.6.	14:30	Workgroup 1	A) Formalizing Carleson (basement), B) Math activities for the general public (plenary)		
		17.6.	16:30	Workgroup 2	A) Boolos Curious Inference (fireplace) B) HoTT Lean (plenary)		
			18:00	Get-together	Pretzels and Beer in the Garden (weather permitting)		
Tue		18.6.	9:00	Kevin Buzzard	Capturing mathematical equality		
		18.6.	9:40	Cyril Cohen	Building Measure Theory using Hierarchy Builder		
		18.6.	10:20	Coffee Break			
		18.6.	10:50	Lawrence Paulson	Formalising Advanced Mathematics in Isabelle/HOL		https://www.cl.cam.ac.uk/~lp15/papers/Alexandria/Hausdorff.pdf
		18.6.	11:30	Yves Bertot	Reconciling Type theory with the use of a single type of numbers for mathematical education at introductory levels		
		18.6.	12:10	Lunch			
		18.6.	14:00	Workgroup1	A) Applications of Proof assistants in teaching (plenary), B) Formalizing Carleson (basement)		
		18.6.	16:00	Cake Break			
		18.6.	16:30	Workgroup2	A) Porting Hierarchy Builder (plenary), B) HoTT Lean (fireplace) C) Choosing (basement)		
Wed		19.6.	9:00	Natarajan Shankar	Beautiful Formalizations and Proofs		
		19.6.	9:40	Jacques Carette	Unavoidable Mathematics		
		19.6.	10:20	Coffee Break			
		19.6.	10:50	Georges Gonthier	Programming Mathematics: Tools and Challenges		
		19.6.	11:30	Patrick Massot	From informal to formal and back		
		19.6.	12:10	Lunch			
		19.6.	14:00	Panel discussion	How do we formalize (most of) mathematics?	Panel discussion on Wednesday at 2pm	
		19.6.	16:00	Cake Break			
		19.6.	16:30	Workgroup2	A) How to expand the role of formal mathematics in mathematical practice (fireplace), B) Differences between proofs of programs and proofs in mathematics (plenary), C)Hierarchy builder (basement), D) HoTT in Lean (2. floor seminar room)		
Thu		20.6.	9:00	Abdulaziz	Formalising the Theory of Combinatorial Optimisation		
		20.6.	9:40	Florian Rabe	HOL+Dependent Types + Subtyping	https://kwarc.info/people/frabe/Research/slides/rabe_dhol_24.pdf	
		20.6.	10:20	Coffee Break			
		20.6.	10:50	Katja Bercic/Jure Taslak	Lean-HoG: Incorporating a database of graphs into a proof assistant		
		20.6.	11:30	Johan Commelin	Condensed Type Theory		
		20.6.	12:10	Lunch			
		20.6.	14:00	Workgroup1	A) Polynomials in Lean (fireplace), B) Raising Academic recognition for Formalizations/Implementations (plenary), C) Hierarchy builder (basement), D) HoTT Lean (2. floor seminar)		
		20.6.	16:00	Cake Break			
		20.6.	16:30	Workgroup2	A) Formal to informal and back (NLP, NLU, CNL, Autoformalization ...) (basement) B) Publication norms for formalized math (plenary) C) Understanding practical differences between theorem prover type systems (fireplace)		
Fr		21.6.	9:00	Jeremy Avigad	Verifying elliptic curve computations on blockchain	https://www.andrew.cmu.edu/user/avigad/Talks/him_stark.pdf	
		21.6.	9:40	Rob Lewis	Teaching Lean vs. teaching with Lean		
		21.6.	10:20	Coffee Break			
		21.6.	10:50	Claudio Sacerdoti Coen	A taste of ELPI		
		21.6.	11:30	Wojciech Nawrocki	Extending the Lean user interface with widgets (a tutorial)		
		21.6.	12:10	Lunch	Lunch		
		21.6.	14:00	Workgroup1	A) HoTT Lean (2nd floor seminar room) B) How to make formal logic more palatable to mathematics practitioners (plenary) C) Theory Builder (fireplace)		
		21.6.	16:00	Cake Break	Cake Break		
		21.6.	16:30	Workgroup2	A) Polynomials in Lean (fireplace)		

Workgroup Proposals:		Proposer	Working Title (description)				
Coding	*	11 Steve Awodey	HoTT Lean (a project for HoTT formalizations in Lean) https://github.com/sinhp/groupoid_model_in_lean4	mo2	plenary		
Disc	1	13 Michael Kohlhase	Raising Academic recognition for Formalizations/Implementations	Thu1			
Disc	1	11 Bill Farmer	How to expand the role of formal mathematics in mathematical practice.	wed2			
Disc	1	5 Bill Farmer	How to make formal logic more palatable to mathematics practitioners	fri1			
Disc	1	20 Christine Paulin-Mohring	Differences between proofs of programs and proofs in mathematics - Do we need different tools ? should we care about the computational content of definition and proofs in mathematics ?	wed2			
Work on	1-100	17 Jeremy Avigad	Designing activities to introduce the general public to interactive theorem proving (for example, at MoMath)	mo1	plenary		
Disc/Ex	<=2	10 Mohammad Abdulaziz	Understanding practical differences between theorem prover type systems - Formalising simple case studies that highlight the differences	Thu2			
Coding	\infty	12 Cyril Cohen	Porting Hierarchy Builder from Coq to another proof assistant (Lean?)	Tue2, Wed1, Thu1, Fri1		https://github.com/CohenCyril/mathlib4/tree/hb	
Coding	\infty+1	8 Floris van Doorn	Formalizing Carleson's theorem	mo1	basement		
Coding/Disc	<=2	5 Christoph Benzmüller	How to automate Boolos Curious Inference (as an example for intelligent cut-introduction)?	mo2	fireplace		
Coding	2	8 James Davenport	Polynomial arithmetic in Lean	thu1			
Disc	<=2	8 Angeliki Koutsoukou-Argyraki	Choosing what mathematical areas/ theorems to formalise and how this could be approached, both as an individual choice and as a community choice: how to coordinate and decide on library expansion goals and strategies.	tue2			
Disc/Demo	<=2	28 Patrick Massot	Applications of Proof assistants in teaching	Tue1			
Disc/Demo	<=2	16 Patrick Massot	Formal to informal and back (NLP, NLU, CNL, Autoformalization ...)	Thu2			
Disc	1	22 Rob Lewis	Publication norms for formalized math	thu2			

Mo		24. 6.	15:00	Mario Carneiro	Impromptu chat about HB in Lean		
Tue		25. 6.	15:00	Mima Džamonja	Calculating ordinal invariants - can you do better than a human ?		
Wed		26. 6.	15:00	Jeremy Avigad	Automated Reasoning for Mathematics		

Day	Date	Time	Speaker	Title / Description	Notes / Links
Thu	27. 6.	15:00	Thomas Ammer	Formalising and Verifying Algorithms for the Minimum Cost Flow Problem	
Fr	28. 6.	15:00	Maximilian Doré	Automating Reasoning in Cubical Type Theory	Abstract: Cubical type theories incorporate new reasoning principles to reason about proof-relevant higher-dimensional equalities akin to cells in a cubical set. We study two such reasoning principles, contortions and homogeneous Kan composition, in the setting of Dedekind cubical type theory. We present an algorithm which finds many Kan compositions occurring in practice, and explore a characterisation of contortions as poset maps to...
Mo	1.7.	15:00	Valeria de Paiva	Dialectica Categories for all	https://drive.google.com/drive/folders/0ByOuGrHooOoHR2dHTC1maTFwsW8?resourcekey=0-twfuGQQ4BB6YO_W9A71SXw
Tue	2.7.	15:00	Josef Urban	The Proofgold blockchain	https://doi.org/10.4230/OASIcs.FMBC.2022.4 , https://formalweb3.uibk.ac.at/pgbca/
Wed	3.7.	15:00	Michael Kohlhase	Aspects of Mathematical Knowledge - The Tetrapod Model	
Thu	4.7.	15:00	Sebastian Ullrich	Profiling Tools in Lean	https://lean-lang.org/talks/imu2024.pdf
Fr	5.7.	14:00	Paul Andre Mellies	Fierce Discussion about ML and Proof Theory	

6.-7. 7. Women in Formal Math Workshop — https://www.mathematics.uni-bonn.de/him/programs/special-events/women-in-formal-math

Day	Date	Time	Speaker	Title
Sat	6.7.	9:30	Ursula Martin	The social machine of Mathematics
		11:00	Roussanka Loukanova	Algorithmic Syntax-Semantics with Type Theory of Acyclic Algorithms
		14:00	Maria Inesde Frutos-Fernandez	Local Fields in Lean
		15:30	Mateja Jamnik	How can we make trustworthy AI
		16:15	Anshula Gandhi	Automatically Generalizing Proofs
		17:00	Sandra Alves leading	Women in EuroProofNet Discussion
		18:00		Wine and Cheese in the Garden
Sun	7.7.	9:30	Sandra Alves	Structural Rules and Algebraic Properties of Intersection Types
		11:00	Lucy Horowitz	MathGloss and beyond
		14:00	Brigitte Pientka	A Type-theoretical framework for Certified Metaprogramming
		15:30	Andrea Kohlhase	Insights into search interfaces for mathematicians
		16:10	Gisele Secco	Loganc avec the Lacaniens - challenges from a translation
		17:00	Valeria de Paiva leading	Women in Logic next steps

8. - 12. 7. No PFM Seminar — Workshop Bridging between informal and formal

Day	Date	Time	Speaker	Title / Description	Notes
Mo	8.7.	10:00		Registration, Welcome and Organization	
	8. 7.	10:40	Aarne Ranta	Informath: Informalization of Formal Mathematics	slides: https://docs.google.com/presentation/d/e/2PACX-1vQFs1t_O8OpQbG-7FFRVzBASPPNrktbUscUXwv28bysr1LU0j-Cvp9MbhrDeFM-Z5R8DG2ueOmsdTKjIpub?start=false&loop=false&delayms=3000
	8. 7.	11:20	Dennis Müller	sTeX: Injecting Formal Mathematics into LaTeX	
	8. 7.	12:00		Lunch	
	8. 7.	13:30	Who am I	All participants present their research/workshop interests in 2 min	
	8. 7.	14:30	plenary	Distributions of workgroups and talks; be prepared to pitch your talks and your workgroup proposals	
	8. 7.	16:00			
	8. 7.	16:30	Workgroups	Workgroup: Tutorial on (elementary) GF for beginners (Ranta)	
	8. 7.	18:00	Get-together	Pretzels, Beer and Wine at the HIM Villa and (weather permitting) the garden.	
Tue	9. 7.	9:00	Peter Koepke	A Natural Language Formalization of Perfectoid Rings in Naproche	
	9. 7.	9:40	Frederik Schaefer	A Framework for Prototyping Symbolic Natural Language Understanding	
	9. 7.	10:20	Coffee Break		
	9. 7.	10:50	Valeria/Lucy	Demo: three prototypes demo (Alignments)	
	9. 7.	11:30	Wojciech Nawrocki	Demo: Commutative diagrams in Lean	
	9. 7.	12:10	Lunch		
	9. 7.	14:00	Workgroup1 (Carlos)	The importance of mathematical interface (eg notation, language design, definitions...) in higher-order structures (eg higher-arity algebras, higher homotopy, hypergraphs...).	During this session we looked at a few problems in higher-arity algebra and discrete mathematics, particularly involving hypergraphs and higher-order array (tensor) algebras. The importance of diagrammatic representations was stressed as a tool for discovery and, ultimately, as a substrate for computation of higher-order structures that are far from human capabilities.
	9. 7.	16:00	Cake Break		
	9. 7.	16:30	Workgroup2 (Wojciech Nawrocki)	Workgroup: Auto-visualization of commutative diagrams in Lean (informalization of category theory)	This session was a preliminary discussion concerning how the visualization module for commutative diagrams in Lean mathlib4 might be extended or replaced so that the resulting visualizations are more often practically helpful to formalizers working with/on mathlib4. See the report: https://voidima.in/assets/papers/24niwrocki_auto_visualization_commutative_diagrams_lean_4_workgroup_report.pdf
Wed	10. 7.	9:00	Silvia De Toffoli	How to prove things with Diagrams	
	10. 7.	9:40	Stefania Dumbrava	Towards a Knowledge Graph of Formalised Mathematics	
	10. 7.	10:20	Coffee Break		
	10. 7.	10:50	Frederik Schaefer	Annotating and Spotting in Mathematical Corpora (concepts and tools)	
	10. 7.	11:10	Josef Urban	Autoformalization - ten years into the game. (A 20-minute talk about the various past, current and future approaches/ideas.)	
	10. 7.	11:30	Sander Dahmen & Alain Chavarri Villarello	Computation and formalization: case studies in computational number theory	
	10. 7.	12:10	Lunch		
	10. 7.	14:00	Workgroup1	Jeremy Avigad and Ursula Martin: Living deliberately in the age of AI+math	Notes and reading list here https://docs.google.com/document/d/1EUWJe8ioM6jVCyRAeZwuH9nVj47RkByzp5OwG92I8AQ
	10. 7.	16:00	Cake Break		
	10. 7.	16:30	Workgroup2	Silvia De Toffoli: Errors in Formalization	
Thu	11. 7.	9:00	Wenda Li	Autoformalisation: Bridging the Gap between Informal and Formal Proofs	
	11. 7.	9:40	Carlos Zapata-Carratala	Hypergraph Rewriting as a Foundation for Diagrammatic Calculus	https://docs.google.com/presentation/d/1sPnU4RjoV5nW8U80FUxKefW4cpChti02VUphVBzTb_8iedt?usp=sharing
	11. 7.	10:20	coffee break		
	11. 7.	10:50	Moa Johansson	Neuro-symbolic architectures for assisting auto-formalisation and mathematical discovery. This will be an overview of recently started and about-to-start work using neural networks to help with lemma discovery and "co-piloting" for proof assistants.	
	11. 7.	11:30	Shankar	Cueology of Proof	
	11. 7.	12:10	Lunch		
	11. 7.	14:00	Wenda Li/Mateja Jamnik	Workgroup: The role and challenges of LLMs/neural methods in autoformalisation. We will be extremely interested in inputs from experts who use sympolic methods to parse natural languages, which are very likely to complement the neural approaches.	A view from the IMU Committee on Electronic Information and Communication"
	11. 7.	16:00	Cake Break		
	11. 7.	16:30	Shankar	Workgroup: Proof portability across across multiple systems/representations (including natural language). Projects like OpenTheory and Dedukti have addressed this issue. What are some of the technical challenges and approaches for practical proof portability?	
Fr	12. 7.	9:00			
	12. 7.	9:40			
	12. 7.	10:20	Coffee Break		
	12. 7.	10:50	Emily Riehl	Formalizing post-rigorous mathematics	https://emilyriehl.github.io/files/post-rigorous.pdf
	12. 7.	11:30	Adrian De Lon	Natural theorem proving with Naproche-ZF	
	12. 7.	12:10	Lunch		
	12. 7.	14:00	Jacques Carette	Workgroup Deformalization, joint narration, and other views of doing both formal and informal at the same time (discussion)	
	12. 7.	16:00	Cake Break		
	12. 7.	16:30	Frederik Schaefer	Annotating and Spotting in Mathematical Corpora (Hands On)	

Workgroup Proposals:

Proposer	Working Title (description)	interest/periodicity	Day of the first workgroup
Aarne Ranta	Accessing GF from Lean. I am currently working with an external parser and a Haskell program that translates Lean to GF, but it would be great to learn from Lean experts how to achieve a closer integration. For instance, to use Lean's own parser to return ASTs, to include GF linearization rules in Lean code, to show natural language output in Lean interaction, to receive Lean input in natural language. We did all of this with an early version of Agda once, and have ideas about what functionalities are feasible and useful, but don't know yet how best to implement them.	6 (multiple times)	
Dennis Müller	Tutorial: Flexiformalization in sTeX (hands-on)	4 (as often as needed) tue 1	
Frederik Schaefer	Annotating and Spotting in Mathematical Corpora (Hands On)	5 (as needed) fr2	
Wojciech Nawrocki	Auto-visualization of commutative diagrams in Lean (informalization of category theory)	13 (as needed) tue2	
Carlos	The importance of mathematical interface (eg notation, language design, definitions...) in higher-order structures (eg higher-arity algebras, higher homotopy, hypergraphs...).	10 (2 times) tue1	
Jacques Carette	Deformalization, joint narration, and other views of doing both formal and informal at the same time (discussion)	18 (once) fri1	
Moa Johansson	The role of LLMs/neural methods in autoformalisation - I think this should be lead by e.g. Wenda Li who has worked in this area. I'm just putting the suggestion here as a strong indication that I'd be very interested in this :)	thu1 15+-2 (once)	
Shankar	Proof portability across across multiple systems/representations (including natural language). Projects like OpenTheory and Dedukti have addressed this issue. What are some of the technical challenges and approaches for practical proof portability?	15 (once) thu2	
Aarne Ranta	Tutorial on (elementary) GF for beginners	11 (once+) Mon2	
Silvia De Toffoli	Some theoretical issues here. I am interested in how things can go wrong in both informal and formal mathematics. In particular, I'd like to come up with a taxonomy of mathematical errors. What is your experience in fixing errors while formalizing mathematics? Did you find substantial errors in the published literature? How would you characterize a "local" or "fixable" error? Relatedly, do proofs (or purported proofs) change when you fix them? In your experience, when you formalize a proof, are you generally creating a different presentation of the same proof or a different proof altogether? With respect to problems that might arise from the formal side, can we really be certain that a result is correct if we have a formal proof of it in LEAN? What could go wrong? For example, how can we be sure that what we proved formally is really what we wanted to prove in the first place?	preference for Wednesday participants: everyone, once wed2	

	Ursula Martin	I'd be interested in joining discussions on Jeremy Avigad's notion of "living deliberately"	Notes and reading list here https://docs.google.com/document/d/1EUWJs9toM6jVCyRAxZwuH9nVj47BkByzp5OwG92l9AQ everyone: once wed1	
	katja Bercic	Alignments	The discussion centered around a proposal to join existing projects for alignments between concepts in different math data repositories. The proposal was discussed and no concrete decision was taken. More thinking about the issues is desired.	
	Peter Koepke, Adrian De Lon		Naprocha: Technical information on installation, usage, concrete formalizations etc. and/or discussion on possible future developments	

Talk Proposals:

Proposer	Talk Title	Proposed Day
Shankar	The Cueology of Proof	wed/thu
Frederik Schäfer	Annotating and Spotting in Mathematical Corpora (concepts and tools)	wed
Emily Riehl	Formalizing post-rigorous mathematics	fri
Josef Urban	Autoformalization - ten years into the game. (A 20-minute talk about the various past, current and future approaches/ideas.)	wed/thu
Moa Johansson	Neuro-symbolic architectures for assisting auto-formalisation and mathematical discovery. This will be an overview of recently started and about-to-start work using neural networks to help with lemma discovery and "co-piloting" for proof assistants.	thu
Sander Dahmen & Alain Chavarri Villarello	Computation and formalization: case studies in computational number theory	wed
Valeria and Lucy	Demo: Four prototypes (Parmesan, MathGloss, MathAnnotator and HyNLI)	tue
Wojciech	demo on Comm diagrams	tue

Mo	15. 7.	15:00 Peter Dybjer	Inductive Definitions, Predicativity, and the Mahlo universe	
Tue	16. 7.	15:00 Sina Hazratpour	Dependent Equalities in Lean4	https://github.com/sinhp/LeanFibredCategories
Wed	17.7.	15:00 (Jeremy Avigad)	At the Math Inst, opposite Pop-Mensa: A formal perspective on mathematical structures	https://www.mathematics.uni-bonn.de/hcm/events/hausdorff-colloquium
Thu	18.7.	15:00 Evan Cavallo	Formalizing cubical interpretations of homotopy type theory	See https://arxiv.org/abs/2406.18497 and https://ecavallo.net/equivariant-cartesian/
Fr	19. 7.	15:00 Gisele D. Secco	From Computers to Diagrams and Back: The Four-Color Theorem and the Rise of a New Mathematical Culture	I want to present the structure of my book proposal and ask my highly qualified audience if they want to hear more about a specific topic/chapter. I can then prepare this particular topic and present it at some point next week. P.S.: I was told not to reserve a spot for another talk next week. Hence, if by any chance people wants to hear more about my work, we can arrange an informal meeting.
Mo	22. 7.	15:00 Shashank Pathak	GFLean: Autoformalisation for Lean via GF	https://arxiv.org/abs/2404.01234
Tue	23. 7.	15:00 Rishikesh Vaishnav	Lean4Less: A Term-Patching Framework for Eliminating Definitional Equalities in Lean	https://fmtp.github.io/fmtp-page/workshops/2024/wip_1_vaishnav.pdf [https://drive.google.com/file/d/1sfLphHBLszI5fcphvcU535Elv1M1nf4H/view?usp=drive_link]
Wed	24. 7.	15:00 Mario Carneiro	Lean4Lean: Formalizing the type theory of Lean	
Thu	25. 7.	15:00 Kensho Tsurusaki	Literate programming in Lean	I'll talk about implementing a system for "literate programming" in Lean. https://drive.google.com/file/d/1GzrJ6lse5MrHTYZCLCvpo42FVCMa4v2X/view?usp=sharing
Fr	26. 7.	15:00 Jonathan Weinberger	Directed univalence in simplicial type theory	https://arxiv.org/abs/2407.09146

29. 7. – 2. 8.	**no PFM Seminar**	**Libraries of Digital Math**		
Mo	29. 7.	9:00 Organizers	Registration and Organizational, ...	
	29. 7.	9:40 Frédéric Blanqui	Translating HOL-Light proofs to Coq	https://blanqui.gitlabpages.inria.fr/talks/lpar24.pdf — https://github.com/deductiteam/hol2dk
	29. 7.	10:20 Coffee break		
	29. 7.	10:50 Fabian Huch	Big Math Libraries in ITPs	https://docs.google.com/presentation/d/1Rc0HsBPq7FyWtu8cJDAWZbTBECLhMLX_wo7gVeXdAmE/edit?usp=sharing
	29. 7.	11:30 Assia Mahboubi	Trocq: proof transfer in type theory, beyond univalence and type equivalence	
	29. 7.	12:10 Lunch		
	29. 7.	13:30 Who am I	All participants present their research/workshop interests in 2 min	
	29. 7.	14:30 plenary	Distributions of workgroups and talks; be prepared to pitch your talks and your workgroup proposals	
	29.7.	15:20 Mario Carneiro	Metamath Zero: Export your Logic	
	29. 7.	16:00 Cake Break		
	29. 7.	16:30 Workgroup 2	Exporting proofs from Isabelle/Coq/Agda/Lean/Dedukti/?	
	29. 7.	18:00 Get-together	Pretzels, Beer, or Wine in the HIM Garden.	
Tue	30. 7.	9:00 Luis Berlioz	Text mining the arXiv with LLMs	
	30. 7.	9:40 Aarne Ranta	Building grammar libraries for mathematics and avoiding manual work	slides: https://docs.google.com/presentation/d/10Z9zd0205mztllMtgSUVURDCUe-j4qzTGkefTNRoZx1p/edit?usp=sharing
	30. 7.	10:20 Coffee Break		
	30. 7.	10:50 Mauricio Ayala-Rincón	Formalization of nominal equational reasoning in PVS - nominal unification	http://mat.unb.br/~ayala/EVENTS/MayalaRincon_Unification_HausdorffTrimProp2024.pdf
	30. 7.	11:30 Makarius	Isabelle as System Platform for the Archive of Formal Proofs (AFP)	https://files.sketis.net/Bonn2024.pdf
	30. 7.	12:10 Lunch		
	30. 7.	14:00 Workgroup1	A) Ranta: Hands-on work on GF resources for mathematical language. An introduction to GF can be included if needed. (plenary); B) Macbeth: Study HOL Light sum-of-squares tactic and reimplement in other language(s) (basement)	
	30. 7.	16:00 Cake Break		
	30. 7.	16:30 Workgroup2	Carette: Structuring Libraries - pros and cons of various choices	https://docs.google.com/document/d/13sqGxYEvD6A9778BtRkri3M2T8vhLNkq6J0KkuxLQk/edit
Wed	31. 7.	9:00 Ilka Agricola	A view from the IMU Committee on Electronic Information and Communication (CEIC)	I give a short introduction to the work of the IMU Commit
	31. 7.	9:40 Freek Wiedijk	From 100 to 1000+ theorems	
	31. 7.	10:20 Coffee Break		
	31. 7.	10:50 Yannick Forster, but many presenters	How libraries deal with maintenance, build management (CI), change management (PRs)	
	31. 7.	11:10 Moritz Schubotz	Formal Mathematics in zbMATH Open	https://docs.google.com/presentation/d/1l3ixplwgDqkzhQ_jNB_iQEUYQWgc_aWwcKJmLHCbk/edit?usp=sharing
	31.7.	11:30 Florian Rabe	Teaser for the workgroup on Hierarchies of Theories	
	31.7.	11:40 Ilka Agricola	CEIC Publication Discussion	
	31. 7.	12:10 Lunch		
	31. 7.	14:00 Workgroup1	Commelin: How libraries deal with maintenance, build management (CI), change management (PRs)	
	31. 7.	16:00 Cake Break		
	31. 7.	16:30 Workgroup2a	Rabe: Automated Transformation of Hierarchies of Theories in Large Libraries (colloq rm)	https://docs.google.com/document/d/1aO_39p5zhLq7QNToSRZEvkLmL49urH_rNjKspZDG9q0ps
		Workgroup2b	Ilka: Publication Discussion (fireplace)	
Thu	1. 8.	9:00		
	1. 8.	9:40 Florian Rabe	Experiences from Exporting Proof Assistant Libraries	https://kwarc.info/people/frabe/Research/slides/rabe_paRexp_24.pdf
	1. 8.	10:20 Coffee Break		
	1. 8.	10:50 Yannick Forster	The Coq library of undecidability proofs, talk with a focus how to use work around proof assistants for teaching and thesis projects	
	1. 8.	11:30 Thibault Gauthier (remote)?	Automated Alignments	
	1. 8.	12:10 Lunch		
	1. 8.	14:00 Pietro Monticone	Getting Started with Blueprint-Driven Formalization Projects in Lean	https://github.com/pitmonticone/LeanProject ; https://github.com/PatrickMassot/leanblueprint ; https://github.com/pitmonticone/NewLeanProject
	1. 8.	16:00 Cake Break		
	1. 8.	16:30 Workgroup2	Urban: Library search mechanisms	https://www.cs.unibo.it/~sacerdot/slides_cicm15.pdf, https://docs.google.com/document/d/1AQk0-sQO4D9arlbxAuqbS_rlk4bJQ64ZEpLHqYEgsVl/edit?usp=sharing
Fr	2. 8.	9:00 Heather Macbeth	Inequality reasoning in formalization	
	2. 8.	9:40 Sina Hazratpour	HoTT in Lean4	
	2. 8.	10:20 Coffee Break		
	2. 8.	10:50 Michael Kohlhase	Flexiformal Math Libraries: Collecting/Organizing more than Def/Thm/Proof	
	2. 8.	11:30 Yannick Forster	Library search mechanisms in Coq	
	2. 8.	12:10 Lunch		
	2. 8.	14:00 Workgroup1		

Workgroup Proposals:

Proposer	Working Title (description)	
Mario Carneiro	Exporting proofs from Isabelle/Coq/Agda/Lean/Dedukti/?	1++, 20, Mo2
Aarne Ranta	Hands-on work on GF resources for mathematical language. An introduction to GF can be included if needed.	1-2, 13,tue 1
Valeria de Paiva -> Pietro	I would like someone Pietro to give a tutorial on Blueprint; I'd like to use it for dependencies between definitions	1x 15, Thu1
Jacques Carette	Structuring Libraries - pros and cons of various choices	1++, 17, tue2
Florian Rabe	Automated Transformation of Hierarchies of Theories in Large Libraries	2-\inftly, 17, wed1
Heather Macbeth	Study HOL Light sum-of-squares tactic and reimplement in other language(s)	2+, 12, tue1, thu2??
Johan Commelin	How libraries deal with maintenance, build management (CI), change management (PRs)	Wed2 everybody, 2++
Josef Urban	Library search mechanisms	thu2??

Talk Proposals:

Proposer	Talk Title	Proposed Day

Mo	5. 8.	15:00	Mauricio Ayala-Rincón	Formalization of nominal equational reasoning in PVS - Antiunification	http://mat.unb.br/~ayala/EVENTS/MAyalaRincon_Anti-Unification_HausdorffTrimProg2024.pdf		
Tue	6. 8.	15:00	James Davenport	Branch Cuts: the dirty secret of calculation		https://staff.bath.ac.uk/masjhd/Slides/JHDatHIMBranchCuts.pdf	
Wed	7. 8.	15:00	James McKinna	(Some?) Reflections on the last 35+ years working with/in type theory for formalised computer science/mathematics			
Thu	8. 8.	15:00	Marco Maggesi	Mechanising Gödel–Löb Provability Logic in HOL Light	https://link.springer.com/article/10.1007/s10817-023-09677-z		
Fr	9. 8.	15:00	Thaynara Arielly de Lima	Algebraic Theorems in PVS			
Mo	12. 8.	15:00	Alexei Lisitsa	Gauss Realisability conditions: from error correction to formalization	Proper abstract to come		
Tue	13. 8.	15:00	Yutaka Nagashima	Abduction Prover			
Wed	14. 8.	15:00	J.D. Phillips	Automated theorem provers in mathematical research	Proper abstract to come		
Thu	15. 8.	15:00	Marco Caminati	Challenges in formalizing recent results in formal language theory	Proper abstract to come. If anybody else needs this slot, let me know.		
Fr	16. 8.	15:00		Final Day of TP and Day of Departure			
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