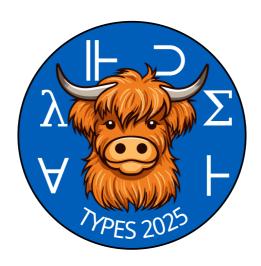
31st International Conference on Types for Proofs and Programs

TYPES 2025



University of Strathclyde, Glasgow, Scotland, 9–13 June 2025











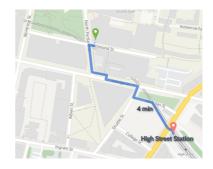
Social events

Monday 9 June: Welcome reception Livingstone Tower

The welcome reception will take place on level 11 of Livingstone Tower with views over Glasgow. Livingstone Tower is located next to the conference venue.

Wednesday 11 June: Excursion to Loch Lomond

Wednesday afternoon we will go on a boat trip on Loch Lomond. To get there, we will take trains from the nearby *High Street* station to the village of Balloch. We will go in two groups: one leaving at 14:39, and one leaving at 15:09. Check the back of your name badge to see which group you have been assigned.



Thursday 12 June: Conference dinner Grosvenor Cafe

The conference dinner will take place in the Grosvenor Cafe (pronounciation: grow-when-er, /ˈgɹəʊ.və.nə(ɪ)/) in Ashton Lane in the West End of Glasgow. A convenient way to get there is to take the subway from $Buchanan\ Street$ to Hillhead— either the inner or outer circle works (but inner will be quicker). The dinner will start at 19:30.



MSP's Guide to Glasgow

Sights, Museums and Parks

In particular we recommend a walk through the Necropolis followed by a visit to the Cathedral.

- The Necropolis. Glasgow's City of the Dead is close to the conference venue, and offers nice views of the city.
- Glasgow Cathedral. Medieval; the oldest building in Glasgow.
- St Mungo Museum of Religious Life and Art. Close to the Cathedral and Necropolis.
- Glasgow Green. Large green space by the river Clyde.
- Kelvingrove Art Museum (Kelvingrove Park). Art/natural history/natural/history museum, well worth a visit. Has a Dalí painting, and is located in a nice park.
- University of Glasgow and the Hunterian Gallery. The other university in Glasgow has a nice campus, and the oldest museum in Scotland.
- Glasgow Botanic Gardens.
- The Burrell Collection (Pollok Park). A varied collection of art and history. Is located in a nice park, including highland cattle.
- \bullet Queen's Park. Nice view of Glasgow from the flag pole.
- Gallery of Modern Art.
- The Riverside Museum. Award-winning transport and technology museum.
- Glasgow Science Centre.
- The Clydeside Distillery. The closest whisky distillery.
- The Tenement House. Discover what life was like in Glasgow 100 years ago.
- Sharmanka Kinetic Theatre. A unique experience.
- Glasgow mural trail. Nice walk in the city centre.

	19–20		18-19			17–18			16–17			15-16		14-15			13-14			12 10	5			11-12			10-11			9-10					
		Welcome reception Livingsian Town, level 11		AdapTT: A Type Theory with Functorial Types actual depth Fisher Improve, Manufacture Instituted Knowledge Material Republished	Even de Bode Fien, Hoore Balt	Lof type theory Core logic Real for a helicit. Thirmouse from Sheaves	An algebraic internal groupoidal model of Martin-	JJ COURS	Vigouele Migness, Meit van der Weide, Ennedde Afrem, Jinge Banaké. Verti	A Type Theory for Comprehension Categories with Applications to Sub-typing	Directed equality with dinaturality Andre Levis Pean Lemper, Massel 1884	Synthetic-Inductive Category Theory	Dependent two-sided fibrations for directed type theory **Present One, Page Ameloi South**	Coffee broak	Rational Codata as Syntax-with-Binding tean Waters	Categorical Normalization by Evaluation: A Novel Universal Property for Syntax David C. Norry, Manual Pare	Thinning Thinnings: Safe and Efficient Binders April Gaugates, Workcolle	Predicaves on Purpose Concrite Instit		Expansion in a Calculus with Explicit Substitu-	Lanch		L&b's Theorem and Procability Predicates in Rooq Anti-Belli, Daniel Kin, Novid Finter	Geometric Reasoning in Lean; from Algebraic Structures to Preshouves	Mechanizing logical relations Amein Peter	Coq proof of the fifth Busy Beaver value Fain Noon, & Middley Collegein	A Coq Formalization of Lagois Connections for Secure Information Flow Coper 2005 Lion Geodesic, Scot Epitol Name, Davin Reptal Pedam	Collie broak	Examples and counter-examples of injective types in univolent mathematics Test at long Marin faculty.	In Carrior Space, No One Can Hear You Stream Merin Bellen Anna Melloud, Percollens Hibre	Accessible Sets in Martin-Lof Type Theory with Function Extensionality You Related		Towards topological type theory for decrypting transfinite methods in classical mathematics between	Registration and Coffee	Monday 9 th June
					Decreeion on genthe hukanos issues		Bruk	Type Theory of Acyclic and Cyclic Algorithms without Chain Memory		Reasoning with strict symmetric monoidal cate- gories in Agala Meta Atmosfile		Why Types: Natural Structures of Mind or Artifi- cial Formal Tools?		Coffe break	Ecumenical logic Bare Present		WEPN Opening and Welcome	Constructive algebraic completeness of first-order bi-intuitionistic logic format Kee, Lin Steller	Type Theory and Philosophical Lagic	Proc. Phoens and Philosophical Logic	Lunch		Reak Completions For (Elementary) Topoi Kde Federic, Net un de Fede	Yet another homotopy group , yet another Brunerie number Sended dat Lings etcs	Cocompleteness in simplicial homotopy type the- ory. Describerary America Heatopys, Unit Bushelt.	Duality in Univ	About the construction of simplicial and cubical sets in induced form Auto Medical Sensitivations	Coffee break	Placeton Albrid etch., Anabus Kaposi	phism Make Manue Prom parametricity to identity types	The Case for Impredicative Universe Polymor-	Polymorph	Algebraic Universes and Variances For All Mother Among Mee Force Internalized Parametricity via Lifting Universals	Coffee	Tuesday 10 th June
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				Lightweight Agds Formshastion of Denotational Semantics Flow D. Remo	Extensional concepts in intensional type theory, revisited Money Acquites	OF Manufacture, Then the design	Konolog, Blarry O-yand Pila Clo	Jacob de Destruction de la Company de la Com	St got Superviso Anak Timeny	Solving Guarded Domain Equations in Presheaves Over Ordinals and Mechanizing It	LeantLoan: Mechanizing the Metatheory of Loan	Towards Formalising the Guard Checker of Rocq No.Jan Ten Veneti Forter	HOTTLean: Formalizing, the Meta-Theory of HOTT in Lean hand has formation these Cresses, des handows, Hop and handed Species Handon.	Odfre break	Large Elimination and Indexed Types in Refine- ment Types & no Forest, Vát Nava	Containers: Compositionality for Tensors Met Olice, Prime Symmet, Astron. Stelanon	Weihrauch Problems as Containers an Proc. Octo Prote	An Industive Universe for Setoids	Audel Paledia	Stellar - A Library for API Programming	laneh		A Quantitative Dependent Type Theory with Recursion Old Beliann Ma Anton Developm, Autous Ant	Unboxed Dependent Types Gardente Therefore	Nb E for LNL via Adjoint Meta-modalities have read	Impredicative Encodings of Inductive and Coindactive Types Areas Councy, Vots on der West, Series Second	Linear Types inside Dependent Type Theory.	Coffee breek	Efficient Program Extraction in Elementary Num- ber Theory using the Proof Assistant Minlog Because Hencel	A Fully Dependent Assembly Language	A Gloset Sort for Proof-Relevant yet Erased Data in Rocq and Metalbocq Adem Rosen Metics forms, 760 West-feder		Modalities and effective interpretation of HoTT in higher grouped ds	Codice	Friday 13 th June

MSP's Guide to Glasgow, continued

Food

Some of our favourites.

City Centre

- Paesano Pizza, £
- Sugo Pasta, £
- Merchant Chippy, £
- Shawarma King, £
- Eda, ££
- Bread Meats Bread, ££
- Damasqino, ££
- The Dhabba, ££
- Cafe Gandolfi, ££
- Mosob, ££
- Yiamas Greek, ££
- Dim Sum, ££
- Swadish, ££
- Sarti's, ££

West End

- Ottoman Coffee House, £
- The Finnieston, £££
- Mother India, ££
- Ox and Finch, ££
- The Dockyard Social, £
- Roastit Bubbly Jocks, ££
- Time Out Cafe, £
- Zique's, ££
- Ubiquitous Chip, £££
- Ashoka, ££
- Bothy, ££

- Hanoi Bike Shop, ££
- Ka Pao, ££
- Stravaigin, ££

East End

- Celentanos, ££
- Sword Sushi, £
- Tibo Bistro, ££
- Dennistoun Bar-B-Que, ££
- WEST Brewery, ££
- The Drygate, ££

South Side

- Bar Vini, ££
- The Big Counter, ££
- Ranjit's Kitchen, £
- Kebabish, ££
- Little Hoi An, ££
- Lobo, ££
- The Glad Cafe, ££
- The Rum Shack, ££

Vegan Specialists

- Mono, ££
- Stereo, ££
- Tapa, £
- Non Viet Vegan, ££
- Suissi Vegan Kitchen, ££
- The Hug and Pint, ££

Pubs and bars

A curated list of MSP favourites, many alternatives are available.

City Centre

- The Pot Still, ££ Best pub in Glasgow for Whiskey.
- Babbity Bowster, ££ Live traditional music by regulars on Wednesdays.
- The Press Bar, £
- The Scotia Bar, £ Allegedly the oldest pub in Glasgow.
- The Clutha, £
- The Howlin' Wolf, ££
- The Old Hairdresser's, £
- The Griffin, £

West End

- Bon Accord, £
- Chinaskis, ££
- Lebowskis, £
- $\bullet\,$ The Sparkle Horse, ££
- Curlers Rest, £
- Inn Deep, ££
- The Belle, £

East End

- Redmond's, ££
- The Palais, ££
- The Gate, ££
- WEST, ££

Southside

- The Rose Reilly, £
- The Bell Jar, ££
- The Allison Arms, £
- Church on the Hill, ££

Live Music

- Nice N Sleazy
- The Hug and Pint
- Mono
- Stereo
- King Tut's Wah Wah Hut
- Ivory Blacks
- St Luke's and the Winged Ox