

Workshop on  
“Mathematical Language and Practical Type Theory”

1 to 4 February 2020

organized by  
Thomas Hales (Pittsburgh), Peter Koepke (Bonn)

• Friday, January 31

	<b>Arrival in Bonn</b>
15:00 - 18:00	<b>Retirement Colloquium for Peter Koepke</b> <i>(not part of HCM workshop)</i>
15:00	<b>Tom Hales</b> <i>The Formalization of Mathematics</i>
16:15	<i>Coffee break</i>
16:45	<b>Peter Koepke</b> <i>Life in Logic</i>
18:00	<b>Reception</b>

• Saturday, February 1

09:00 - 09:15	<b>Self Registration</b>
09:15 - 10:15	<b>Marcos Cramer</b> <i>Analyzing Mathematical Language Logically and Linguistically: From Naproche to Frames</i>
10:15 - 10:45	<i>Group photo and coffee break</i>
10:45 - 11:45	<b>Benedikt Löwe</b> <i>Technology adoption in mathematical research: automated proof-checking as a case study</i>
11:45 - 12:45	<b>Andrei Paskevich</b> <i>ForTheL, a formal language in human clothes</i>
12:45 - 14:30	<i>Lunch break</i>
14:30 - 15:30	<b>Adrian De Lon, Peter Koepke, Anton Lorenzen</b> <i>Introduction to the Naproche-SAD system</i>
15:30 - 16:30	<i>Coffee break</i>

16:30 - 18:00	<b>Tutorial and Lab</b> <i>Formalizing with Naproche-SAD</i>
19:00	<b>Conference dinner</b> <i>at Godesberger Allee 70</i>

• **Sunday, February 2**

09:30 - 10:30	<b>Adrian De Lon, Peter Koepke, Anton Lorenzen</b> <i>Parsing ForTheL in the Naproche-SAD system</i>
10:30 - 11:00	<i>Coffee break</i>
11:00 - 12:00	<b>Sebastian Ullrich</b> <i>Embedding languages into Lean 4</i>
12:00 - 13:00	<i>Lunch break at Mathematics Center</i>
13:00 - 13:30	<b>Mario Carneiro</b> <i>Lean tutorial on groups</i>
13:30 - 14:00	<b>Floris van Doorn</b> <i>Tactics in Lean</i>
14:00 - 14:30	<b>Josef Urban</b> <i>Informal2Formal: Automatic formalization by statistical and semantic parsing of mathematics</i>
14:30 - 15:00	<b>Kevin Buzzard</b> <i>At the coal face</i>
15:00 - 15:30	<i>Coffee break</i>
15:30 - 18:00	<b>Lab, discussions</b>
18:30	<b>Guided walk to the city center</b> <i>Afterwards individual dinner in local restaurants</i>

• **Monday, February 3**

09:00 - 10:00	<b>Bernhard Schröder</b> <i>How proofs are told. Linguistic aspects of proof texts</i>
10:00 - 10:30	<b>Aarne Ranta</b> <i>From Logical to Grammatical Framework</i>
10:30 - 11:00	<i>Coffee break</i>
11:00 - 12:00	<b>Aarne Ranta</b> <i>GF-Tutorial</i>
12:00 - 13:30	<i>Lunch at University Restaurant</i>
13:30 - 14:00	<b>Makarius Wenzel</b> <i>The Isar Proof Language after Two Decades</i>
14:00 - 14:30	<b>Cezary Kaliszyk, Florian Rabe</b> <i>Towards an Intuitive Language for Formalizing Mathematics</i>

14:30 - 15:00	<b>Konstantin Verchinine</b> <i>How the system SAD was born in Kiev</i>
15:00 - 15:30	<i>Coffee break</i>
15:30 - ...	<b>Lab, discussions</b>

• **Tuesday, February 4**

9:00 - 9:30	<b>Bernhard Fisseni, Deniz Sarikaya</b> <i>Frames for mathematical proofs</i>
9:30 - 10:00	<b>Merlin Carl</b> <i>Diproche - Automated Proof Checking for Didactical Applications</i>
10:00 - 10:30	<b>Michael Kohlhase</b> <i>Corpus-Based Meta-Mathematics: Flexiformal Mathematics across various Systems and Languages</i>
10:30 - 11:00	<i>Coffee break</i>
11:00 - 12:30	<b>Plenary discussion</b>
12:30	<b>End of official workshop program</b>
12:30	<i>Lunch at University Restaurant</i>
13:30 - 18:00	... <i>Seminarrooms will stay open for further collaborations and discussions</i>

*All talks take place at the Lipschitz-Saal (room 1.016), Endenicher Allee 60, Bonn.*