

Dagstuhl Seminar 26121
Proof Systems in Actual Practice: Reasoning and Computation
(16-20 March 2026)

*Important notice: Tutorials are intended as 30 min plus 15 min discussion.
Talks should allow 1/3 of the scheduled time for discussion.*

From Dagstuhl staff: "Ask participants to avoid conference-style talks -- these tend to provide more answers than questions. Instead, ask participants to bring open problems, to show their current ideas and insights and to use details sparingly."

Monday 16th March 2026

09:00 Introduction round (at most one minute each participant)
09:45 Andrej Bauer: Was ist und was soll die synthetische Mathematik? (tutorial)
10:45 break
11:00 Riccardo Borsetto: Where does AC_ω hide in constructive reals? (talk)
11:30 Ingo Blechschmidt: A primer to traditional realizability (tutorial)
12:00 break
12:15 lunch
13:25 walk and talk
15:00 coffee and cake
15:30 Sara Negri: Proof systems for strong negation (tutorial)
16:15 David Wärn: What is synthetic higher category theory? (tutorial)
16:45 working group on 27 lines on cubics in synthetic algebraic geometry [more working groups are possible]
18:00 dinner

Tuesday 17th March 2026

09:00 Satoru Niki: Strong negation: why, and why not
09:45 Iosif Petrakis: Jointed Operators on Hilbert Spaces
10:30 break
11:00 Reuben Rowe
11:40 Ulrik Buchholtz
12:15 lunch
13:25 walk and talk
15:00 coffee and cake
15:30 Liron Cohen: What is effectful realizability? (tutorial)
16:15 Alexandre Miquel
17:00 Benno van den Berg
18:00 dinner
19:20 Working group: Extraction of constructive content from classical proofs
20:10 Working group: Introduction to synthetic algebraic geometry

Wednesday 18th March 2026

09:00 Dominik Kirst & Yannick Forster
09:45 Andrej Bauer
10:15 break
10:45 Luna Strah: Topological properties are taboos in topological models
11:15 break
11:30 Sana Stojanovic Djurdjevic: Using interactive theorem provers in educational settings
12:00 break
12:15 lunch
13:25 excursion
16:10 Working group: Exploring the new notion of Adleman modules for synthetic and constructive homological algebra
16:10 Working group: Priority arguments synthetically

Thursday 19th March 2026

09:00 Ulrich Berger
09:30 Hugo Herbelin
10:00 ****group photo**** and break
10:30 Takako Nemoto
11:00 break
11:15 Ryota Kuroki
11:45 Working group: blurred drinker's paradox and blurred axiom of choice
12:15 lunch
13:15 Working group: Adleman modules (guest house)
13:30 Working group: Sheaves in actual practice (room 025)
16:00 Sebastian Posur
16:30 break
16:45 Tobias Fritz
17:15 break
17:30 Steve Vickers
18:00 dinner

Friday 20th March 2026

09:00 Martín Escardó
09:30 Marc Bezem
10:00 break
10:30 Tom de Jong: Coherence for Segal types via the Leibniz adjunction
11:00 break
11:15 Steve Awodey
11:45 break / working groups