Dagstuhl Seminar 25491

Approaches and Applications of Inductive Programming (13th AAIP)

Nov 30 – Dec 05, 2025

Organizers:
Ute Schmid (Universität Bamberg, DE)
Gust Verbruggen (Microsoft - Keerbergen, BE)
Sebastijan Dumancic (TU Delft, NL)
Josh Rule (University of California - Berkeley, US)

Tentative Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
09:00-10:30	Introduction Talks	Talks	Talks	Plenary Discussion	Plenary Discussion: Resume and Roadmap
10:30-11:00	*Coffee Break*	*Coffee Break*	*Coffee Break*	*Coffee Break*	*Coffee Break*
11:00-12:00	Talks	Talks	Break-Out Sessions	Report Writing	Report Writing
12:00-14:00	*Lunch Break*	*Lunch Break*	*Lunch Break*	*Lunch Break*	
14:00-15:30	Talks	Break-Out Sessions		Report Writing	
16:00-18:00	Break-Out Sessions	Plenary Discussion		Plenary Discussion	
18:00-19:00	*Dinner*	*Dinner*		*Dinner*	

Please note:

- For the introductory round one slide should be prepared: Each participant gives her/his personal background and main research interests in max. 3 minutes, please upload your slide at Dagstuhl Materials Page (Use personal credentials as created in DOOR to log in)
- The schedule is rather flexibel, we currently scheduled talks for the first two and a half days. Giving more space for discussion of specific topics for the rest of the days. Please also consider to give a demo of your IP system. If you are interested in giving a talk/demo please enter the information at Dagstuhl Materials Page (Use personal credentials as created in DOOR to log in)
- **Please avoid conference-style talks -- these tend to provide more answers than questions. Bring questions, show current ideas and insights, not all the details (which are better discussed personally by the few people who are really interested).**

Monday, Dec 01 – Focus Topic Approaches and Methods of IP

Chair: Ute Schmid

09:00-10:00 Welcome – Organizers (Topic and goals of the seminar)
Short Introduction – Participants

10:00-10:30 Coffee Break

10:30-11:00 Talk (25+5) Gust Verbruggen
E**xecution-guided decoding and within-prompt search for programming by example**

11:00-11:30 Talk (25+5) Maddy Bowers
Concept learning as coarse-to-fine probabilistic program induction

11:30-12:00 Discussion

12:00-14:00 Lunch Break

Chair: Gust Verbruggen

14:00-15:30 Short Talks (15+5)

- Wang-Zhou Dai: Abductive Logical Rule Induction by Bridging Inductive Logic Programming and Multimodal Large Language Models
- David Cerna: Pruning pointless rules and symmetry breaking for ILP
- Mukul Singh: Diffusion is a code repair operator and generator
- Felix Weitkämper: Cyclic Bayesian networks
- Tomáš Kliegr: ILP Meets RDF: Enabling Interoperability Between Popper and AMIE Graph Rule Learning

15:30-16:00 Coffee Break

16:00-17:30 Break-Out Sessions

18:00–19:00 Dinner

Tuesday, Dec. 01 – Focus Topic: Applications of IP

Chair: N.N.

09:00-10:30 Talk (25+5) Jasmin Fisher
Building Explainable Cancer Models with Inductive Programming

Talk (25+5) Adish Singla
Prompt Programming

Discussion

10:30-11:00 Coffee Break

11:00-12:00 Short Talks (15+5)

- Heiko Koziolek: Generating Industrial Control Logic from Natural Language Requirements
- Tomáš Kliegr: Explainable rule-based prediction of cultivation media for microbes

12:00-14:00 Lunch Break (12:00 Photo at the Stairs)

Chair: N.N.

14:00-15:30 Break-Out Sessions

15:30-16:00 Coffee Break

16:00-17:30 Plenary Discussion

18:00-19:00 Dinner

Wednesday, Dec 03 – Focus Topic: Cognition and IP

Chair: N.N.

09:00-10:30 Talks (long and short)
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10:30-11:00 Coffee Break

11:00-12:00 Break-Out Sessions

12:00-13:00 Lunch Break

13:00-... Exkursion (maybe Christmas Market in Trier)

18:00-19:00 Dinner

Thursday, Nov 2

Chair: N.N.

09:00-09:30 Coffee and Networking

09:30-10:30 Plenary Discussion

10:30-11:00 Coffee Break

11:00-12:00 Report Writing in Groups

12:00-14:00 Lunch Break

14:00-15:30 Report Writing in Groups

15:30-16:00 Coffee Break

16:00-17:00 Plenary Discussion

18:00-19:00 Dinner

Friday, Dec. 5

Chair: N.N.

09:00-10:30 Summary discussion, evaluation, action points

10:30-11:00 Coffee Break

11:00-12:15 Outlook, establishing collaborations