



LUND
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EDAP15: Program Analysis

REVIEW AND OUTLOOK

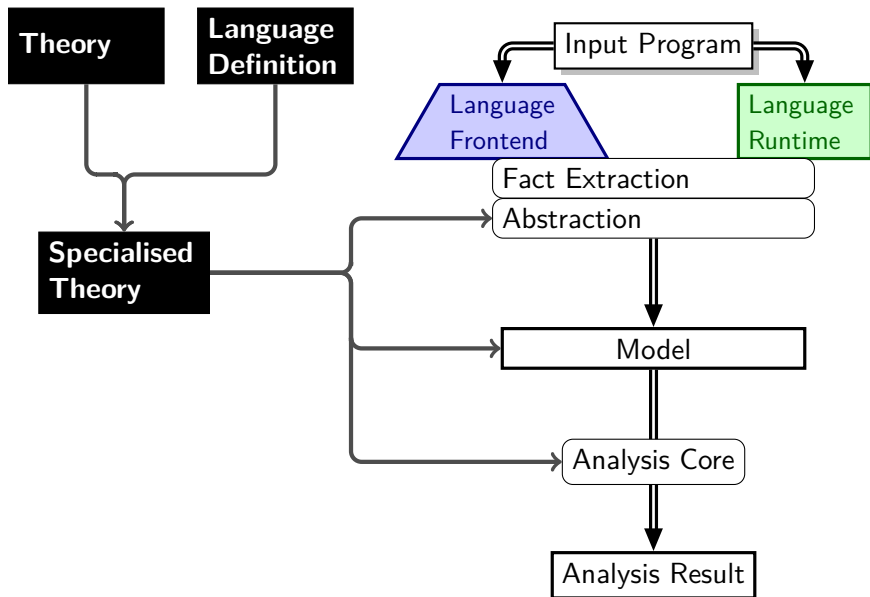
Christoph Reichenbach



Announcements

- ▶ Final Exam slot registration now open
- ▶ Extra Office Hours: Jan 11/12, 14:00–15:00
- ▶ Remaining presentation slots:
 - ▶ 21st and 22nd of December
 - ▶ 11th and 12th of January
- ▶ **Homework 4: No in-person presentation; send e-mail with results to Christoph with “EDAP15-HW4” in title**

Building a Program Analysis



Implementation Strategies

Feature	Traditional	RAG	Datalog
Representation	AST + References	AST+References +Attributes	Relations
Traversal	Visitor	Implicit (attribute eval)	Implicit (eval)
Analysis Results	Symbol Table	Attributes	Relations
Desugaring	Rewriting	NTA	“Is-A” relations
Fixpoints	Worklist	Circular attr.	Implicit
Info Propagation	Visitor state	Synth/Inherit. Attributes	Relations
Multi-Propagation	Visitor state	Broadcast/ Collection	(Transitive) Relations
Evaluation Strategy	Iteration	Top-Down	Bottom-Up or Top-Down