



# 2025 Report

<https://chc-comp.github.io/>

presented at  
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# Goals & Overview

- CHC-COMP: friendly but competitive evaluation of constrained Horn-clause solvers, since 2018  
<https://chc-comp.github.io/>
- common task format (subset of SMT-LIB)  
<https://chc-comp.github.io/format.html>
- public benchmark repository (please submit!)  
<https://github.com/chc-comp>
- Timeline: Jan—May, results presented at SPIN

# Setup and Updates in 2025



- Move from StarExec to LMU cluster (SV-COMP infrastructure)
  - Intel Xeon E3-1230 v5 @ 3.40 GHz, 8 cores, 30 GB memory
  - resource limits per task 1800s
  - **big thanks!**
- Add BV, LRA-Lin tracks
- Evaluate **all available benchmarks**
  - overall CPU time: ~half a year
- Planned: model validation (until HCVS@CAV)

	LIA- Lin  1312	LIA  1266	LIA- Lin- Arrays 139	LIA- Arrays 1728	ADT- LIA 3585	ADT- LIA- Arrays 1045	BV  559	LRA- Lin  274
<i>CHC2C (meta)</i>	✓	✓						
<b>ChocoCatalia</b>					✓			
<b>MuCyC</b>	✓							
<b>PCSat</b>	✓	✓	✓	✓	✓	✓	✓	✓
Eldarica	✓	✓	✓	✓	✓	✓	✓	✓
Golem	✓	✓	✓					✓
LoAT	✓							
Theta	✓	✓	✓	✓			✓	✓
U. Tree Automizer	✓	✓	✓	✓				
Ultimate Unihorn	✓	✓	✓	✓				

Remark: Z3/Spacer was not submitted

# Winners\*

LIA-Lin	LIA	LIA-Lin- Arrays**	LIA- Arrays	ADT- LIA	ADT-LIA- Arrays	BV	LRA-Lin
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Golem	Golem	Eldarica	Eldarica	Catalia	Eldarica	Eldarica	Golem
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MuCyc	Eldarica	Unihorn	PCSat	Eldarica	PCSat	Theta	Eldarica
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LoAT	PCSat	PCSat	Unihorn	PCSat	--	PCSat	Theta
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\*accepting all results as correct  
even though there are definitely inconsistencies

\*\* Theta dropped to 4<sup>th</sup> place after cleanup of results

# Discussion & Outlook

- Infrastructure switch + new benchmarks were a bit of effort
- TODO: report + full results + check wrong results
- Achieved: LRA + BV track, evaluated lots of benchmarks
- Wishlist/Follow-up
  - Parallel/portfolio track
  - Model & CEX validation
- Proposal: non-goal directed, i.e., “best-effort” track
- Organizers of the next edition?