

CoCo 2020 Participant: CSI^{ho} 0.3.2

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CSI^{ho} is a tool for automatically (dis)proving confluence of higher-order rewrite systems, specifically pattern rewrite systems (PRSs) as introduced by Nipkow [1,4]. CSI^{ho} is an extension of CSI, a confluence prover for first-order rewrite systems.

No new features were added to CSI^{ho} since CoCo 2018—it ran unopposed in the HRS category of CoCo 2019. A detailed description of CSI^{ho} be found in [2,3] or earlier CoCo system descriptions. The tool is available at

<http://cl-informatik.uibk.ac.at/software/csi/ho>

References

- [1] R. Mayr and T. Nipkow. Higher-order rewrite systems and their confluence. *TCS*, 192(1):3–29, 1998.
- [2] Julian Nagele. *Mechanizing Confluence: Automated and Certified Analysis of First- and Higher-Order Rewrite Systems*. PhD thesis, University of Innsbruck, 2017.
- [3] Julian Nagele, Bertram Felgenhauer, and Aart Middeldorp. CSI: New evidence — A progress report. In *Proc. 26th CADE*, volume 10395 of *LNCS (LNAI)*, pages 385–397, 2017.
- [4] T. Nipkow. Higher-order critical pairs. In *Proc. 6th LICS*, pages 342–349, 1991.