

CoCo 2026 Participant: **crest** 1.0

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The Constrained REwriting Software Tool (**crest**, for short) is a tool for automatically proving (non-)confluence of logically constrained rewrite systems (LCTRSs). The development of **crest** started in the beginning of 2023 as part of the ARI project¹ and initial experiments were presented at CADE-29 in 2023 [4]. More information of **crest** can be found at

<https://jonas.schoepf.me/crest>

Currently, **crest** supports (non-)confluence [2, 4, 7] and limited (non-)termination analysis [2, 1]. The confluence methods mostly rely on closure properties of (parallel) critical pairs. In addition, we support two transformation techniques: splitting constrained critical pairs (CCPs) and merging constrained rewrite rules [5]. Furthermore, a constrained variant of the redundant rules technique [3] is implemented [6].

Our tool **crest** participates in the LCTRS category of CoCo 2026.

References

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¹<https://ari-informatik.uibk.ac.at/>