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CONFident at CoCo 2026

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- CONFident is a tool for checking **(non-)confluence** of Generalized Term Rewriting Systems (GTRSs).
- This year, our efforts focused primarily on the GTRS extension (presented at IWC'26), so there were no direct improvements affecting the competition.
- We encountered several issues in producing a compiled version that worked correctly in the new Starexec version. We hope that no problems were missed as a consequence of these issues.
- The bibliography contains links to our recent publications.

Implementation and Bibliography

- It is written in Haskell and implements the **Confluence Framework**. The tool is available here:

<http://zenon.dsic.upv.es/confident/>

- Bibliography:

GL24 R. Gutiérrez and S. Lucas. Proving Confluence in the Confluence Framework with CONFident. *Fundamenta Informaticae* 192, Issue 2: LOPSTR 2022, 2024.

GL25 R. Gutiérrez and S. Lucas. Proving and disproving feasibility with infChecker. In *Proc. of the 14th International Workshop on Confluence, IWC'25*, pp 38–44, 2025.

GL26 R. Gutiérrez and S. Lucas. On Proving Confluence of Generalized Term Rewriting Systems Using CONFident. In *Proc. of the 15th International Workshop on Confluence, IWC'26*, pp 51–57, 2026.

Luc25 S. Lucas. Confluence of Almost Parallel-Closed Generalized Term Rewriting Systems. In *Proc. of 30th International Conference on Automated Deduction, CADE-30*, pp 187–206, 2025.