

Termination and Confluence: Remembering Hans Zantema

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In this presentation I give an incomplete overview of the many contributions of Hans Zantema¹ to termination and confluence (including [3–6]). Several of these were presented at earlier workshops on termination² and confluence,³ and I include a biased overview of the development of these workshops and associated competitions [1, 2].

References

- [1] Jürgen Giesl, Albert Rubio, Christian Sternagel, Johannes Waldmann, and Akihisa Yamada. The Termination and Complexity Competition. *Proc. 25th International Conference on Tools and Algorithms for the Construction and Analysis of Systems*, volume 11429 of *LNCS*, pages 156–166, 2019. doi: [10.1007/978-3-030-17502-3_10](https://doi.org/10.1007/978-3-030-17502-3_10).
- [2] Aart Middeldorp, Julian Nagele, and Kiraku Shintani. CoCo 2019: Report on the Eighth Confluence Competition. *International Journal on Software Tools for Technology Transfer*, 2021. doi: [10.1007/s10009-021-00620-4](https://doi.org/10.1007/s10009-021-00620-4).
- [3] Hans Zantema. Termination of Term Rewriting: Interpretation and Type Elimination. *Journal of Symbolic Computation*, 17:23–50, 1994. doi: [10.1006/jsco.1994.1003](https://doi.org/10.1006/jsco.1994.1003).
- [4] Hans Zantema. Termination of Term Rewriting by Semantic Labelling. *Fundamenta Informaticae*, 24(1-2):89–105, 1995. doi: [10.3233/FI-1995-24124](https://doi.org/10.3233/FI-1995-24124).
- [5] Hans Zantema. Termination of String Rewriting Proved Automatically. *Journal of Automated Reasoning*, 34:105–139, 2005. doi: [10.1007/s10817-005-6545-0](https://doi.org/10.1007/s10817-005-6545-0).
- [6] Hans Zantema. Finding Small Counterexamples for Abstract Rewriting Properties. *Mathematical Structures in Computer Science*, 28:1485–1505, 2018. doi: [10.1017/S0960129518000221](https://doi.org/10.1017/S0960129518000221).

¹<https://hzantema.win.tue.nl/>

²<https://termination-portal.org/wiki/WST>

³<http://cl-informatik.uibk.ac.at/iwc/>