



Universität Konstanz

Logic in Konstanz

Invitation

Manfred Kupffer

(University of Konstanz)

Some theories of finite trees

the talk will take place
on **Monday, 05.02.2024** at **15:15** in room **F426**

All interested are welcome to attend.

Abstract: Trees are applied almost everywhere, e.g. in computer science, law, linguistics, mathematics and statistics, and philosophy, i.e. in the field of every department participating in this colloquium. Mainly, applications use finite rooted trees, either ordered or not. For either variety, it would be nice to have an axiomatic theory of all the trees. I present second-order axiomatisations of these theories, from an algebraic, “arithmetical-like” perspective, generalising the strategy at work in the axiomatisation of the theory of hereditarily finite sets in [2, 1].

References

- [1] Márcia R Cerioli, Vitor Krauss, and Petrucio Viana. An arithmetical-like theory of hereditarily finite sets. In *Anais do II Workshop Brasileiro de Lógica*, 2021.
- [2] Steven Givant and Alfred Tarski. Peano arithmetic and the zermelo-like theory of sets with finite ranks. *Notices of the American Mathematical Society*, 77:E51, 1977.

Carolin Antos, Salma Kuhlmann
Coordinators of the Logic Colloquium