Automated Reasoning in the Sequent Calculus Trainer

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Abstract

We present an enhancement of the Sequent Calculus Trainer, a tool that supports students in learning how to correctly construct proofs in the sequent calculus for first-order logic with equality. This new version is not only able to support students in constructing proof trees but also in finding correct proofs for a given sequent. It uses the SMT-solver Z3 in the background in oder to check sequents for validity and provide hints to the user about which rule to apply next.