

Certifying Clausal Tableaux Proofs

Sean Holden

How do we know that a proof output by an automated theorem prover (ATP) is correct? Ideally we would like to know that every step in the proof, including those for procedures such as conversion to clause form, has a defined relationship to proceeding steps that can be independently verified by a third-party ATP. The Thousands of Problems for Theorem Provers (TPTP) system provides a standard for representing problems and solutions in a well-defined format, and also includes tools for checking and visualizing proofs. Until now however it has not had a stable standard for representing proofs from clausal tableaux provers. This talks describes and illustrates the current proposal for such a standard, soon to be implemented by the Connect++ ATP for connection calculus.