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SATISFIABILITY-PRESERVING REASONING IN SOFTWARE VERIFICATION

ADRIÁN REBOLA-PARDO  TU WIEN

**INTERPOLANTS**

Use for model checking overapproximating set of reachable states

\[ A \land B \text{ unsatisfiable, } P \text{ interpolant} \]

\[ A \models P \models \neg B \]

\[ \text{var}(P) \subseteq \text{var}(A) \cap \text{var}(B) \]

**REFERENCES**

T. Philipp, A. Rebola-Pardo, DRAT Proofs for XOR Reasoning - ISRIA 2016

W. Forth, T. Philipp, A. Rebola-Pardo, E. Werner Focusing and Verifying RAT Relations with Deletion Information - TARK 2017

T. Philipp, A. Rebola-Pardo, Towards a Semantics of Unsatisfiability Proofs with Inprocessing - LPAR 2017

L. Cruz-Felipe, A. Rebola-Pardo, A. Bares, Complete and Efficient DRAT Proof Checking. Submitted to CP 2017

A. Rebola-Pardo, G. Wossemacher, Converting DRAT proofs to RUP proofs. In preparation

**MISSION**

Software verification

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