

# Solving Real-Algebraic Formulas with SMT-RAT

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In this talk we present our SMT solver named SMT-RAT, a tool for the automated check of quantifier-free real and integer arithmetic formulas for satisfiability. As a distinguishing feature, SMT-RAT provides a set of decision procedures and supports their strategic combination. We describe our CARL C++ library for arithmetic computations, the available modules implemented on top of CARL, and how modules can be combined to satisfiability-modulo-theories (SMT) solvers. Besides the traditional SMT approach, some new modules support also the recently proposed and highly promising model-constructing satisfiability calculus approach.