(R)AReQS History

- Original ideas in an algorithm for propositional circumscription [Janota et al., 2010]
- Abstraction Refinement QBF Solver — AReQS for 2QBF [Janota and Marques-Silva, 2011]
- Recursive Abstraction Refinement QBF Solver — RAReQS for QBF [Janota et al., 2012]
(R)AReQS Implementations

- RAReQS: CNF, ’11, hasn’t changed since
- RAReQS-NN: non-prenex, non-CNF, implemented before QCIR
- AReQS: 2-QBF, non-cnf
• Maintain SAT formula for each quantification level, gradually strengthen
• Extended to SMT [Bjørner and Janota, 2015]
• See talk on Tuesday for CQESTO [Janota, 2018]
- Based on RAReQS, uses Machine Learning to come up with short strategies
- Winner of last year’s non-CNF track
- AAAI [Janota, 2018]


In Theory and Applications of Satisfiability Testing (SAT), pages 230–244.