OpenSMT 2022

Efficient, interpolating solver for linear arithmetic, uninterpreted functions, and arrays

Written in C++17, used by the Horn solver Golem

New logics:
- Combination logics QF_UFLIA and QF_UFLRA (model-based theory combination)
- Arrays QF_AX (from SMTInterpol)

Performance improvements
- Arithmetic: Cuts-from-proofs, memory efficiency
- SAT solver: phase saving, glucose-style learned clauses management

Proof track
- Custom theory-specific trail format with drat-based SAT proofs

Parallel and cloud solver (SMTS)
- Based on the partition-tree approach
- Search-space partitioning
- Clause sharing between arbitrary partitions
- Major rewrite from last year
- Two versions: portfolio and cube-and-conquer