

Boolector at the SMT-COMP'19

Aina Niemetz, Mathias Preiner, Armin Biere

Tracks/Divisions

Single Query: BV, QF_ABV, QF_AUFBV, QF_BV, QF_UFBV

Incremental: QF_ABV, QF_AUFBV, QF_BV, QF_UFBV

Challenge: QF_ABV, QF_AUFBV, QF_BV

Model Validation: QF_BV

Improvements

- Incremental improvements to avoid redundant clauses in SAT solver
- SAT race 2019 version of CaDiCaL for all logics and tracks
 - ▶ now default SAT engine for incremental and non-incremental
- GMP for faster BV implementation (improving LS engines)
- CryptoMiniSat support

Configurations

- *Boolector*: Combination of prop.-based local search + bit-blasting
 - ▶ Local search for QF_BV and BV
- *Poolector*: Portfolio of four parallel (non-incremental) Boolector configurations:
 - ▶ CaDiCaL, Lingeling, CryptoMiniSat, and SLS (for QF_BV)

<https://boolector.github.io>