Bitwuzla at the SMT-COMP'24

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SMT solver for theories **A, BV, FP, UF + quantifiers**

Divisions: `^((QF_)?(A)?(UF)?(BV|FP|FPLRA)+)$`

Tracks: **Single Query**, **Incremental**, **Unsat Core**, and **Model Validation**

Hightlights

- **New abstraction-refinement approach** for bit-vector arithmetic (at **CAV 2024**)
  - abstraction of $\{\cdot, \div, \text{mod}\}$
  - **enabled by default** for abstracted terms of size > 32 (non-incremental tracks)
  - affects **all** logics
  - significant performance improvement on **large bit-vectors**, incl. **FP logics**
- Improved **arithmetic normalization**
- Improved handling of **extensional constant arrays**

https://bitwuzla.github.io

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