CVC5 at the SMT Competition 2022

H. Barbosa, C. Barrett, M. Brain, G. Kremer, H. Lachnitt, A. Mohamed, M. Mohamed, A. Niemetz,
A. Nötzli, A. Ozdemir, M. Preiner, A. Reynolds, Y. Sheng, C. Tinelli, Y. Zohar

Versatile and Industrial-Strength

- Support for all standardized SMT-LIB theories, user-friendly API
- Features beyond SMT solving (synthesis, proofs, ...)
- This year: Focus on robustness, features

Configurations

CVC5 entered all divisions in all tracks.

- Single query track: Sequential portfolio
- Unsat-core track: Based on proof module or assumptions in the SAT solver

Proof Exhibition Track

- Two configurations: Internal proof checker and LFSC (CVC5-lfsc)
- Default
  - Uses the internal proof format: directed acyclic graphs of proof rule applications
  - Proofs are checked during construction
- CVC5-lfsc
  - Uses CVC5's LFSC back end
  - Proof and proof signatures in LFSC
  - Proof checker ensures that proof is well-formed w.r.t. the signature