

\* Please accept our apologies for cross-posting \*\*

\*\* It would be highly appreciated if you could disseminate this CFB among your colleagues \*\*

## Call for Benchmarks and Participation

### The 6th International Model Counting Competition (MC 2025)

[http://mccompetition.org/2025/mc\\_description](http://mccompetition.org/2025/mc_description)

Model counting enables propositional satisfiability to be used for quantitative reasoning tasks, including probabilistic questions. The competition aims to evaluate available solvers to various problems and set new standards; identify new challenging benchmarks; and to promote solvers for quantitative reasoning problems.

#### Submission Invitation

We invite submissions of benchmark sets and solvers in the tracks named below. Numbers and letters for track names are intentionally omitted to be consistent with previous years.

#### Main Tracks:

- Track 1: Model Counting (MC)
- Track 3: Projected Model Counting (PMC)
- Track 4: Projected Weighted Model Counting (PWMC)

Instance format (1-4): DIMACS-like CNF format [1].

#### Bonus Tracks:

This year we will experiment with a new set of tracks to explore future applications.

- Track 5B: Algebraic Model Counting (AMC): Specific Field (tbd)
- Track 6B: Bitvector Counting

The bonus tracks will be experimental and be run in collaboration with the solver developers. Instance format: Track 5: tbd, Track 6: SMT format.

Rankings will be

- A. Exact (arbitrary precision)
- C. Approximate (provide approximation guarantee)
- D. Heuristic

#### Benchmark Submission

- Categories: Application-based, Generated, or Random instances.
- Recommended: Submit benchmarks as datasets on Zenodo.
- Benchmarks will become publicly accessible after the event.

### **Solver Submission**

- Evaluation platform will be declared shortly (StarExec is decommissioned in 2025).
- Submission requirements guidelines available at [2].

**Results Presentation** Results will be presented at the SAT 2025 conference (tentatively).

### **Important Dates**

- Benchmarks submission deadline: April 18, 2025
- Solvers submission deadline: May 30, 2025

[1] [https://mccompetition.org/assets/files/mccomp\\_format\\_24.pdf](https://mccompetition.org/assets/files/mccomp_format_24.pdf)

[2] <https://mccompetition.org/>