Z3-Parti-Z3++: Mengyu Zhao and Shaowei Cai*

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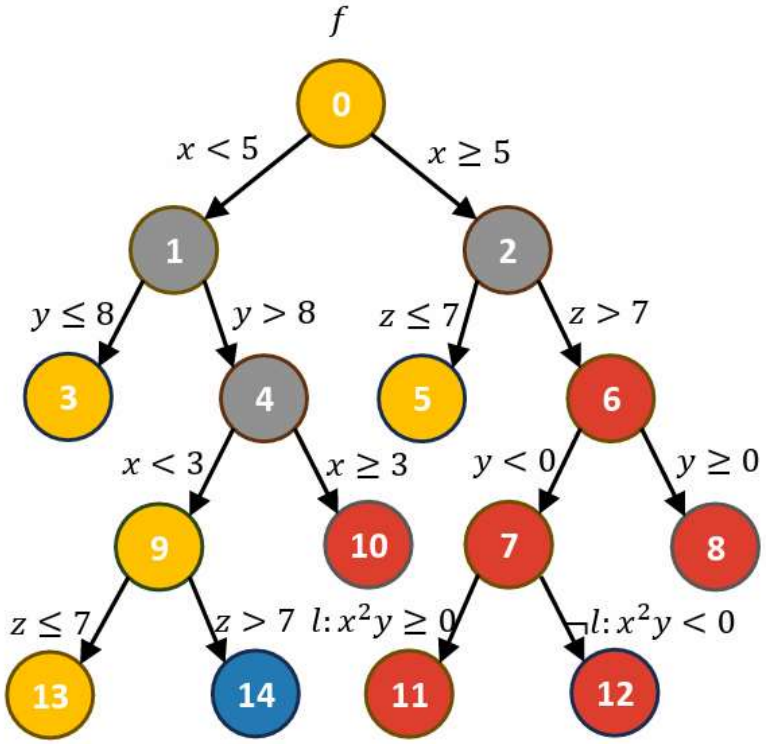
Tracks and Logics:

- The **Parallel Track** and **Cloud Track**
- Arithmetic theories:
  - **QF_RDL, QF_IDL, QF_LRA, QF_LIA,**
  - **QF_NRA, and QF_NIA logics**



Highlights:

- A **derived** solver from **Z3**.
- **Dynamic distributed framework** is comprising:
  - **Master:** task management and scheduling.
  - **Partitioner:** derived from **Z3** (v4.12.1).
  - **Workers: Z3++** as **base solvers**
    - Participates in **SMT-COMP 2023**.
    - Derived from **Z3**, and developed by our team.
    - Deep cooperation of **local search** and **DPLL(T).**
- Implementation of **variable-level partitioning** concept in the **arithmetic theories.**

Detailed Techniques:

Paper: ***Distributed SMT Solving Based on Dynamic Variable-level Partitioning*** **(CAV 2024)**
Tool: https://github.com/shaowei-cai-group/Z3-Parti-Z3pp-at-SMT-COMP-2024

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