

# Automated Detection of Concurrency Bugs in Rust

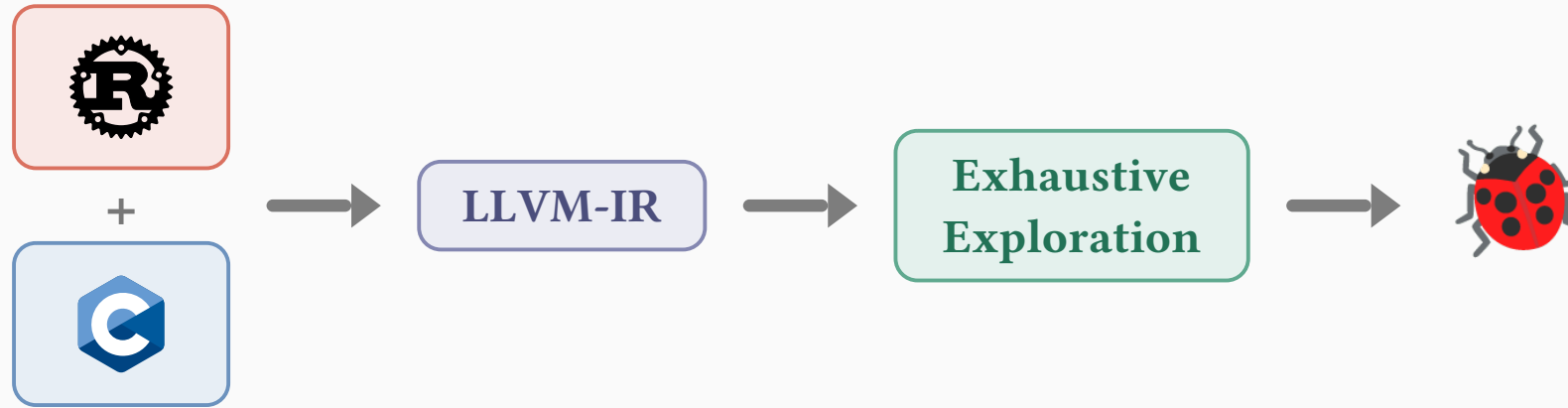
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# RustMC: Automated Verification of Real-World Concurrent Rust



- Push-button verification of Rust `#[test]` functions **and** C/C++ dependencies
- Evaluated on 14 popular concurrency crates, 83% verify out of the box
- Found a bug in the event-listener crate (>450 Million downloads)
- FORTE '26, artefact evaluated

# Future Work: Verification Needs a Target

Exhaustive state space exploration is expensive; scalability requires focusing on the code most likely to contain bugs.



**Open question:** How do we automatically identify the code most worth verifying?

**Early results:** Confirmed data races in production crates. Responsible disclosure in progress.