Motivation & Problem

- Rust refactoring is hard (ownership, lifetimes, effects)
- Compilation success ≠ semantic equivalence
- Need trustworthy, automated refactoring

Approach & Pipeline

[Diagram Placeholder]

REM → CHARON → Aeneas → Coq
Zero-annotation, IDE integration

Results

- 10/10 cases discharged
- Avg cycle: 2s (IDE-friendly)

[Table/Graph Placeholder]

Verifying Extract Method Refactoring in Rust

Matthew Britton, Alex Potanin, Sasha Pak

SPLASH 2025
Singapore

From Prototype to Production-Ready REM

- Standalone CLI
- Async/await, generics, macros
- VSCode extension

Future Work

- Unsafe code
- Concurrency
- Large-scale evaluation
- Better diagnostics
- Scalable verification

GitHub

VSCode

DOI