paraVerifier: An Automatic Framework for Parameterized Verification

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Introduction

- paraVerifier项目总体介绍
- murphi作为协议前端描述语言
- occaml实现invFinder/proofGen
- 具体应用：cache coherence protocols, hardware verification, loop-program invariant based verification

Research Field/Education

- Formal methods: modelchecking + theorem proving
- Research ability: finding problems + solving problem + publishing your results
- program ability:

Detail tasks

- Compiling from Murphi to ocaml(invFinder) representation;
- German2004/Godson-T case study
- flow charts searching
- hardware verification

Detail tasks

Auxiliary materials for submission —important!!!!

- experiments

- homepage introducing paraVerifier

- Tool manual