

An effective fault localization approach for Verilog based on enhanced contexts

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Problems & Ideas

Problems:

- Existing bug localization techniques for Hardware description language mainly depend on static analysis and could not typically scale to large designs.

● Ideas:

- A new perspective to customize dynamic analysis for Hardware description language bug localization. It could be a good supplement to the static methods for HDL fault localization.

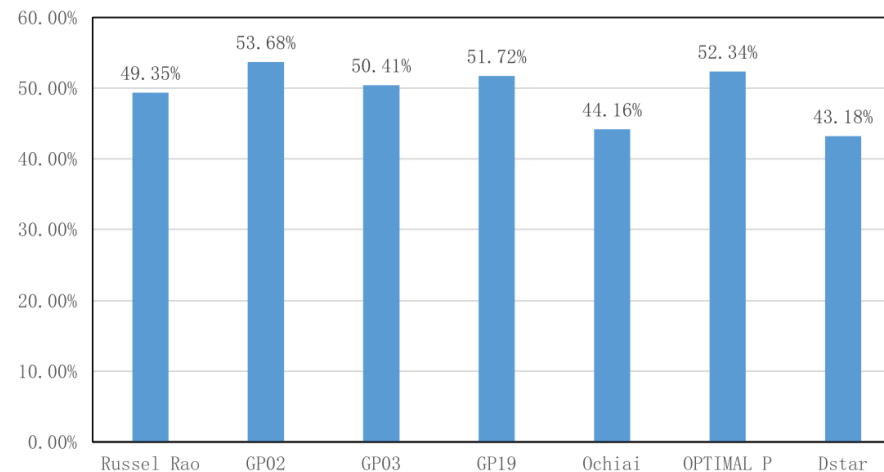
Experimental results and Conclusions

Experimental results:

- An experimental research on 7 real verilog programs with 7 state-of-the-art bug localization approaches
 - Improve bug localization effectiveness

Conclusions: ContextHD is verified as able to improve bug localization

● effectiveness



The RImp of ContextHD over subject programs on all baselines