

Modularity for Accurate Static Analysis of Smart Contracts

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Resumen:

Static code analysis is a useful technique for finding bugs in code and proving their absence. Existing industrial tools sacrifice precision for scalability which leads to false errors reported and missed bugs. I will describe a new way to perform accurate static analysis (ASA) of smart contracts in order to identify bugs and prove their absence before the code is deployed. ASA guarantees that all bugs are reported and that all errors are real. ASA operates on bytecode programs which enables to check the code even when the source is not available. Scalability of the method is guaranteed by verifying each of the contracts with respect to the requirements of other contracts.

Sobre Mooly Sagiv:

Mooly Sagiv is a CEO of Certora Ltd. and a chair of software systems at Tel-Aviv University. He is a leading researcher in the area of large scale (inter-procedural) program analysis, and one of the key contributors to shape analysis. His fields of interests include programming languages, compilers, abstract interpretation, profiling, pointer analysis, shape analysis, inter-procedural dataflow analysis, program slicing, and language-based programming environments. He received numerous scientific awards for contributions static program analysis including Bessel award, ACM fellow, Microsoft Research Outstanding Collaborator Award, and senior ERC grant.