

Program Analysis and Verification

by

Abstract Interpretation

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We introduce the basic concepts in abstract interpretation of exact and approximate abstraction. We apply them to the design of program semantics and proof methods by exact abstractions, and to automatic and sound static analyzers and verifiers by approximate abstractions to cope with undecidability.

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see also: <http://www.di.ens.fr/~cousot/COUSOTpapers.shtml>