

A multi-level simulation tool for laser attacks

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Abstract

This work presents a multi-level simulator for laser-induced fault simulation in digital circuits. It automatically performs the simulation of laser-induced faults from the layout description of the circuit and laser parameters. Multi-level simulation is used for obtaining high accuracy of the fault simulation at transistor level high speed for the simulation of the rest of the circuit. This multi-level process allows handling natural and maliciously induced physical phenomenon leading to circuit misbehavior, while dealing with large circuits.