Body biasing fault injection: Enhancements, analysis, modeling, and simulation

PhD thesis defense

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Introduction

Context

- Electronics systems are everywhere, from entertainment to business;
- They embed cryptographic algorithms to ensure secure operation;
- These implementations are fallible → they leak information.

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Introduction

Objectives

- Fault injection...;
- Side-channel attacks...;
- Main target → Modeling body biasing injection:
  - Characterize better practices for BBI;
  - Define electrical models for BBI simulation;
  - Understand the mechanisms at work;
  - Bring insights on substrate thinning and BBI.

Main flaws of algorithms implemented on actual circuits

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