

tLIFTING : A Multi-level Delay-annotated Fault Simulator for Digital Circuits

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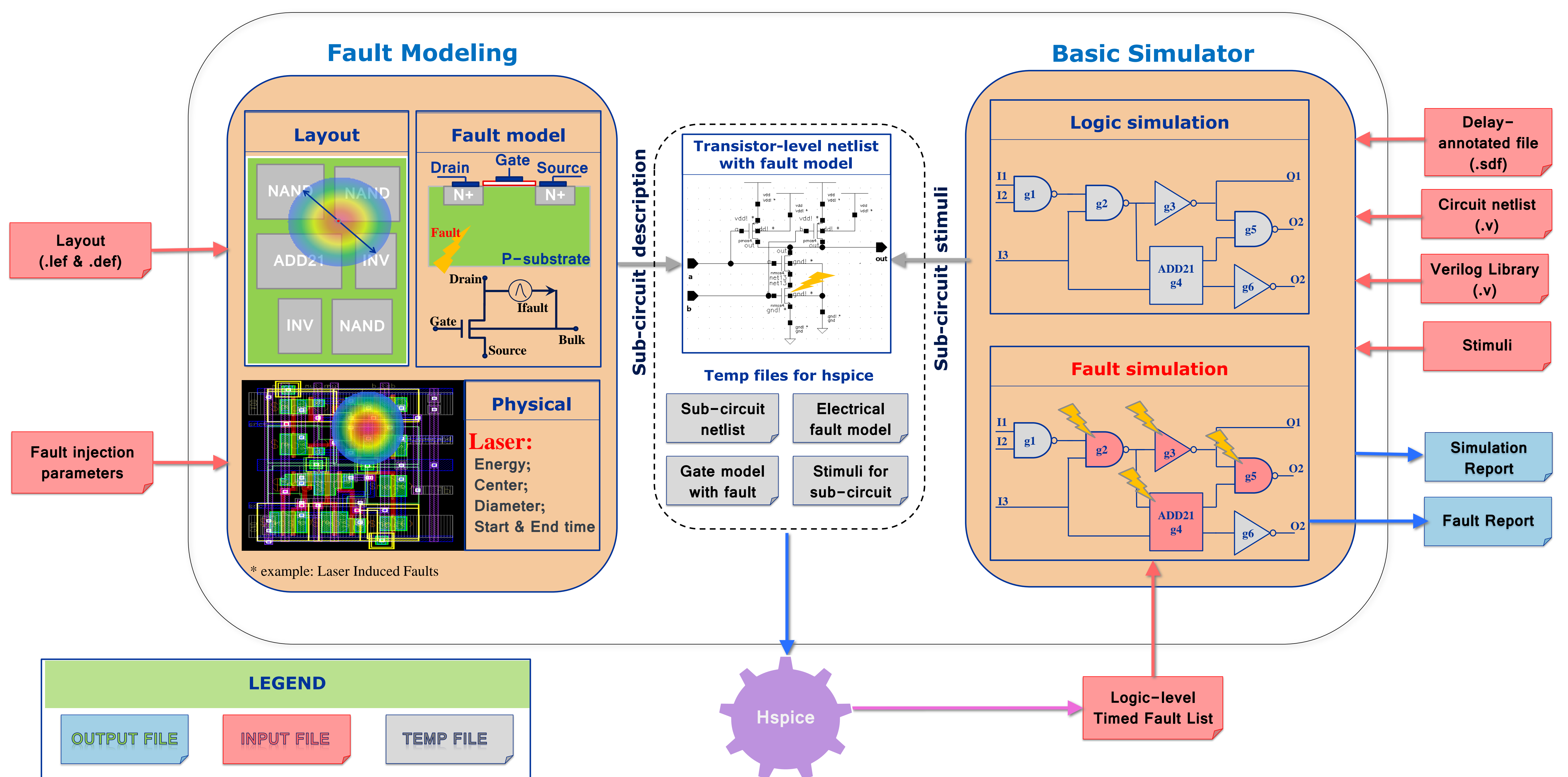
Characteristics

- **Mixed-mode multi-level simulation:**
 - 0-delay gate-level
 - delay-annotated gate-level
 - transistor-level
- **Fault types:**
 - Single/Multiple Event Transient (SET/MET)
 - Single Event Upset (SEU) / Multiple Bit Upset (MBU)
 - Stuck-at
- **Electrical behavior modeling**

Applications

- **Fault simulation:**
 - Single/Multiple Event Transient (SET/MET)
 - Single Event Upset (SEU) / Multiple Bit Upset (MBU)
 - Stuck-at
- **Secure circuits: fault attacks**
 - Fault attacks (Laser, EM, ...)
 - Evaluation of countermeasures
- **Reliability evaluation**

ARCHITECTURE of tLIFTING FAULT SIMULATOR



MULTIPLE LEVEL FAULT SIMULATION PROCESS

