SPECTRE

▸ *Result*:Programs can read all memory

▸ *Affects*: All modern CPU/OS

▸ *Vector*: Uses *speculative execution* to read forbidden memory and *cache timing* to exfiltrate data

▸ *How bad*: Very bad

▸ *Fixes*: Needs changes in CPU and/or changes in programs. Performance impact varies and depends on CPU and workload type.

THREAT-O-METER

Threat - O - Meter

LOW RISK	MEDIUM RISK	HIGH RISK
Exploit unlikely or running untrusted code already worst case	Exploit possible but needs another successful attack to run attackers code	Exploit possible and runs untrusted code "by design"