

## **PROOFS:**

"Security Proofs for Embedded Systems"
Introduction to the fifth workshop



### 5th edition of PROOFS

PROOFS 2012: Leuven



PROOFS 2014: Busan



PROOFS 2013: UCSB



PROOFS 2015: Saint Malo



# Program of the Day

- Overview
  - Two invited talks
  - Six contributed talks

#### Invited talks

- Ryan KASTNER, UCSD, USA.
  - "Moving Hardware from "Security through Obscurity" to "Secure by Design"
- Yuval YAROM, the University of Adelaide, Australia.
  - "Thwarting cache-based side-channel attacks"

#### Contributed talks

- Using Modular Extension to Provably Protect Edwards Curves Against Fault Attacks, Margaux Dugardin, Sylvain Guilley, Martin Moreau, Zakaria Najm and Pablo Rauzy.
- 2 Mistakes Are Proof That You Are Trying: On Verifying Software Encoding Schemes' Resistance to Fault Injection Attacks, Jakub Breier, Dirmanto Jap and Shivam Bhasin.
- Optimal Side-Channel Attacks for Multivariate Leakages and Multiple Models, Nicolas Bruneau, Sylvain Guilley, Annelie Heuser, Damien Marion and Olivier Rioul.
- Algebraic Security Analysis of Key Generation with Physical Unclonable Functions, Matthias Hiller, Michael Pehl, Gerhard Kramer and Georg Sigl.
- Formal Fault Analysis of Branch Predictors: Attacking countermeasures of Asymmetric key ciphers, Sarani Bhattacharya and Debdeep Mukhopadhyay.
- **Template Attack vs. Bayes Classifier**, Stjepan Picek, Annelie Heuser and Sylvain Guilley.

## **Proceedings**

 Soft copies can be downloaded from the website: http://www.proofs-workshop.org/papers.



- We would like the put presentation slides online
- Contributed talks can be revised and submitted for a JCEN special section on PROOFS



