

A nighttime aerial view of a city skyline. Several tall skyscrapers are illuminated with warm yellow lights, and one prominent building on the right has a red-lit top section. In the foreground, a marina is filled with many small boats, and a multi-lane highway with light trails from traffic runs along the left side. The sky is a deep, dark blue.

Welcome to PROOFS!

PROOFS:
“Security Proofs for Embedded Systems”
Introduction to the third workshop



Presentation Outline

- 1 Goal of PROOFS
- 2 Practical Aspects
 - Program
 - Invited Talks
 - Contributed Talks
 - Proceedings

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What we intend to do:

- **For designers:** get more *confidence* in
 - security-oriented designs;
 - security-oriented CAD tools;
- **For evaluators:** do independent tests / attacks.

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Program of the Day

- Overview
 - Two invited talks
 - Six contributed talks (5 regular, 1 short)

Invited talks

- 1 Keynote talks:
 - “*Verified cryptographic implementations: how far can we go?*”, by Gilles Barthe
 - “*Error-Correcting Codes for Cryptography*”, by Jon-Lark Kim

Contributed talks (regular)

- 1 David Galindo, Johann Großschädl, Zhe Liu, Praveen Kumar Vadnala and Srinivas Vivek:
 - *“Implementation and Evaluation of a Leakage-Resilient ElGamal Key Encapsulation Mechanism”*
- 2 Pablo Rauzy, Sylvain Guilley and Zakaria Najm:
 - *“Formally Proved Security of Assembly Code Against Power Analysis: A Case Study on Balanced Logic”*
- 3 Fatemeh Ganji, Shahin Tajik and Jean-Pierre Seifert:
 - *“PAC Learning of Arbiter PUFs”*
- 4 Bruno Robisson and H el ene Le Boudier:
 - *“Physical functions : the common factor of side-channel and fault attacks?”*
- 5 Xuan Thuy Ngo, Zakaria Najm, Shivam Bhasin, Sylvain Guilley and Jean-Luc Danger:
 - *“Method Taking into Account Process Dispersions to Detect Hardware Trojan Horse by Side-Channel”*

Contributed talks (short)

- 1 Jean-Luc Danger, Florent Lozac'h and Zouha Cherif:
 - “*Methods to Enhance the Reliability of Key Generation from Physically Unclonable Functions*”

- 10 submissions
- 13 PC members



Proceedings

- Soft copies can be downloaded from the website:

<http://www.proofs-workshop.org/program.html>.

Login: **proofs2014** Password: **pwd_4_proofs2014**

- This year, no LNCS volume
- We would like the put presentation slides online
- Long talks can be revised and submitted for a JCEN special section on PROOFS



wifi

- PARADISE_BQ
- No password, but one must accept the conditions:
<http://www.busanparadisehotel.co.kr/>