FDTC 2022 Fault Diagnosis and Tolerance in Cryptography

Fault Diagnoses and Tolerance in Cryptography 2022

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16 September, 2022 – cyberspace

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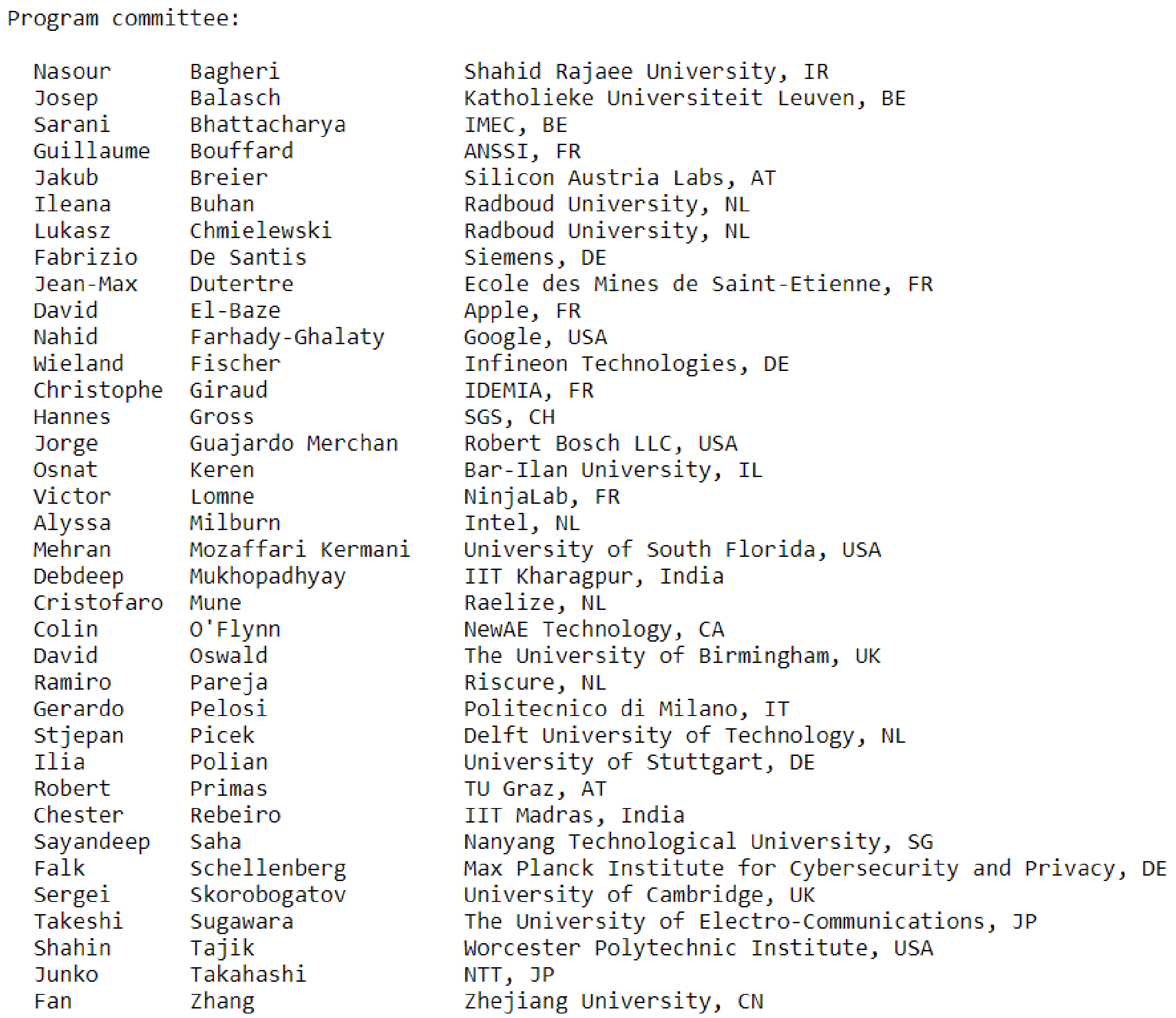

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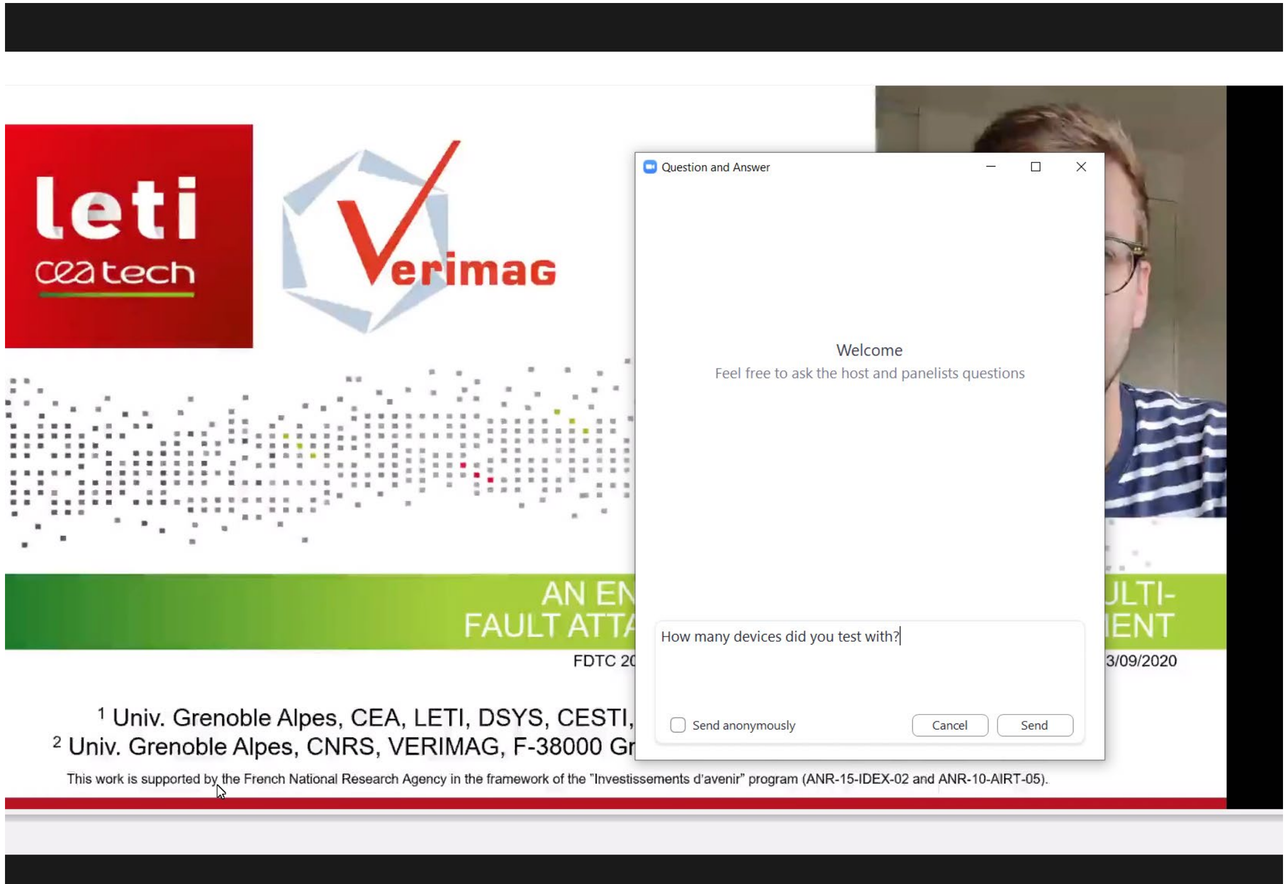
Zoom Conference Notes

- Please use the **Q&A function** to ask questions.
- Please use the **chat function** for general conference chat.



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FAULT ATTA… IENT

FDTC 20… 3/09/2020

[1] Univ. Grenoble Alpes, CEA, LETI, DSYS, CESTI,
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Question and Answer

Welcome
Feel free to ask the host and panelists questions

How many devices did you test with?

☐ Send anonymously

Papers

Submitted Papers:

- 15 papers submitted
- Reviewed with PC members and additional reviewers
- Most papers received 3 reviews.

Accepted Papers:

- 7 regular papers (around 54%)
- 1 short paper (around 25%)
- Overall, around 53% acceptance rate

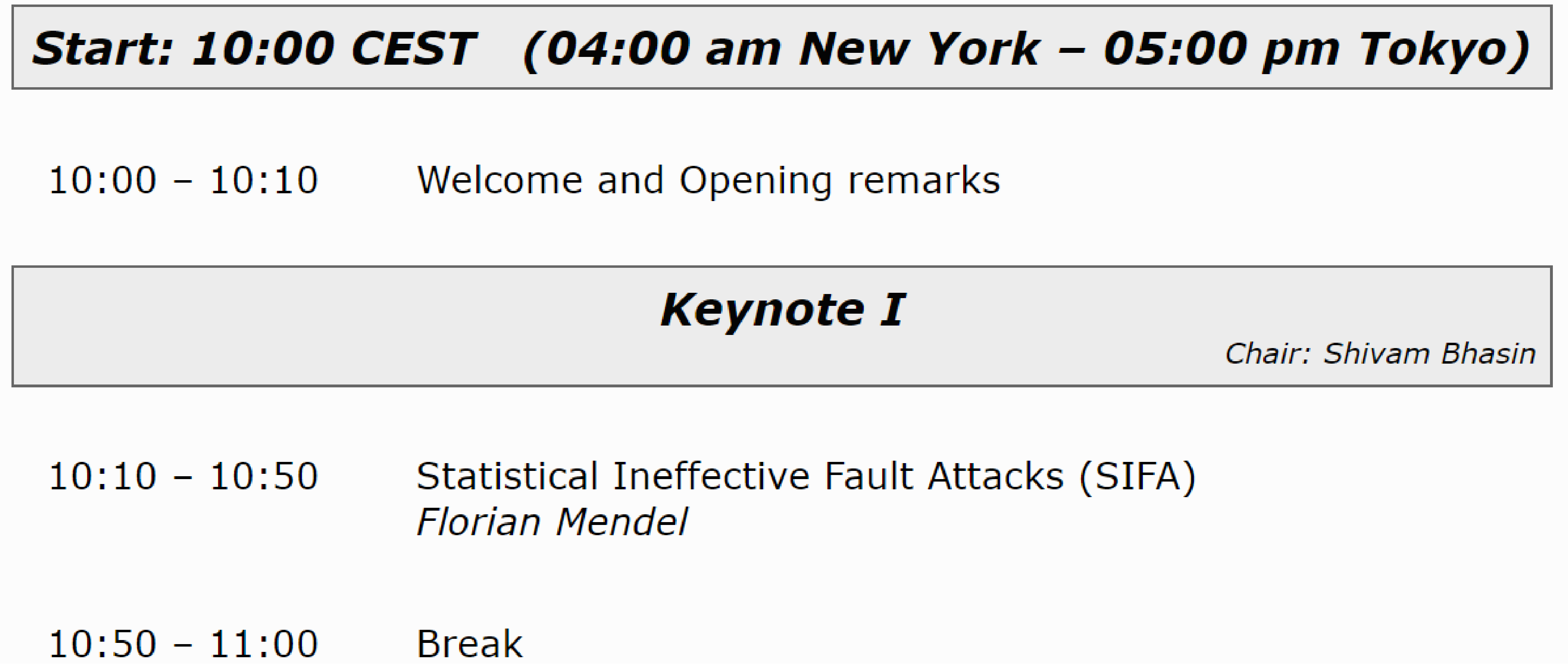
The proceedings will be published by CPS (on IEEExplore).

Invited Talks

- Statistical Ineffective Fault Attacks (SIFA)
  - Florian Mendel
  - Cryptographer & Security Architect, Infineon Technologies

- Pre-silicon fault simulation: Hard and Important
  - Jasper van Woudenberg
  - CTO North America, RISCURE

Program Schedule



Start: 10:00 CEST (04:00 am New York – 05:00 pm Tokyo)

10:00 – 10:10	Welcome and Opening remarks

Keynote I

Chair: Shivam Bhasin

10:10 – 10:50	Statistical Ineffective Fault Attacks (SIFA) *Florian Mendel*
10:50 – 11:00	Break

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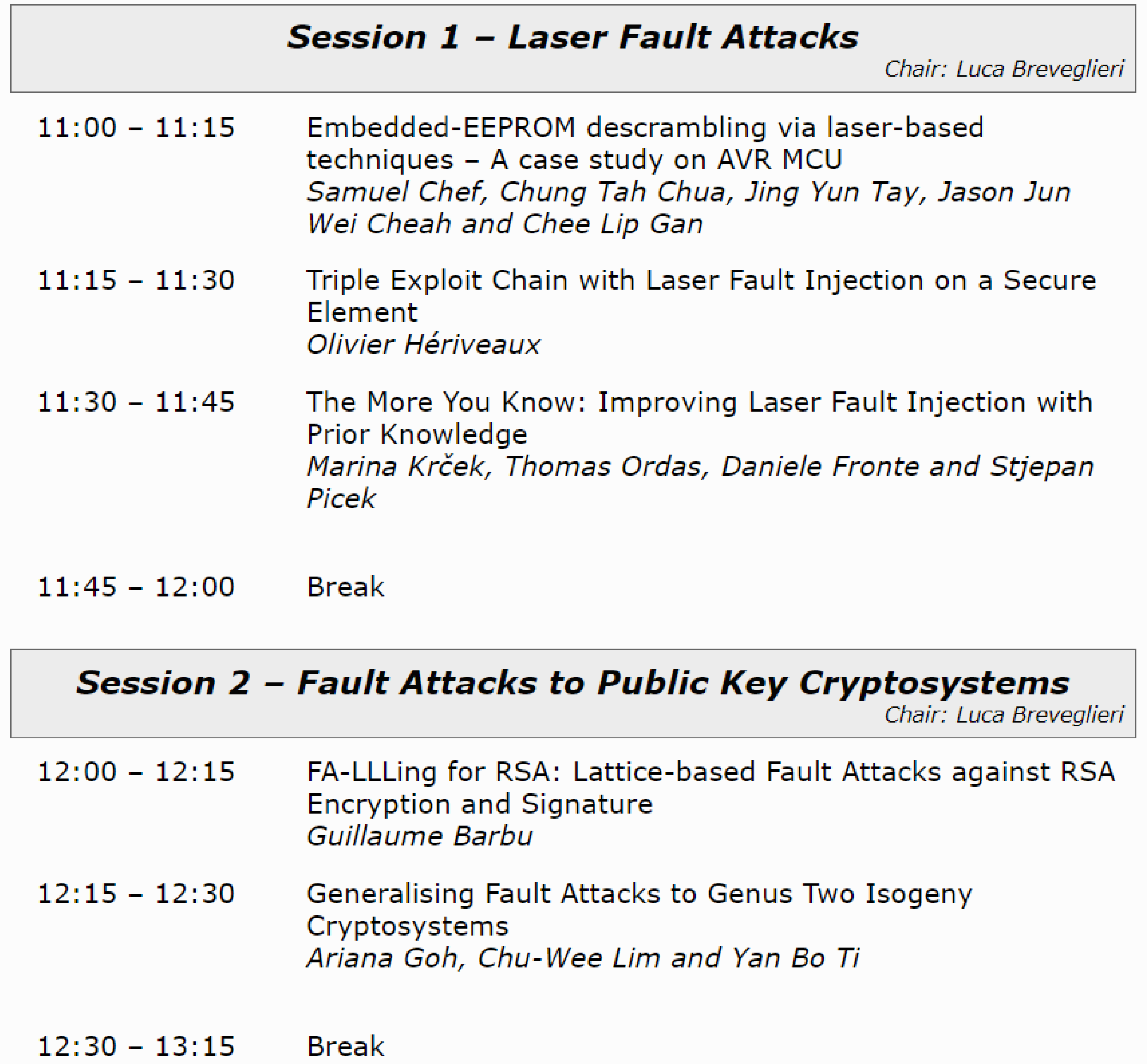

Session 1 – Laser Fault Attacks

Chair: Luca Breveglieri

11:00 – 11:15	Embedded-EEPROM descrambling via laser-based techniques – A case study on AVR MCU *Samuel Chef, Chung Tah Chua, Jing Yun Tay, Jason Jun Wei Cheah and Chee Lip Gan*
11:15 – 11:30	Triple Exploit Chain with Laser Fault Injection on a Secure Element *Olivier Hériveaux*
11:30 – 11:45	The More You Know: Improving Laser Fault Injection with Prior Knowledge *Marina Krček, Thomas Ordas, Daniele Fronte and Stjepan Picek*
11:45 – 12:00	Break

Session 2 – Fault Attacks to Public Key Cryptosystems

Chair: Luca Breveglieri

12:00 – 12:15	FA-LLLing for RSA: Lattice-based Fault Attacks against RSA Encryption and Signature *Guillaume Barbu*
12:15 – 12:30	Generalising Fault Attacks to Genus Two Isogeny Cryptosystems *Ariana Goh, Chu-Wee Lim and Yan Bo Ti*
12:30 – 13:15	Break

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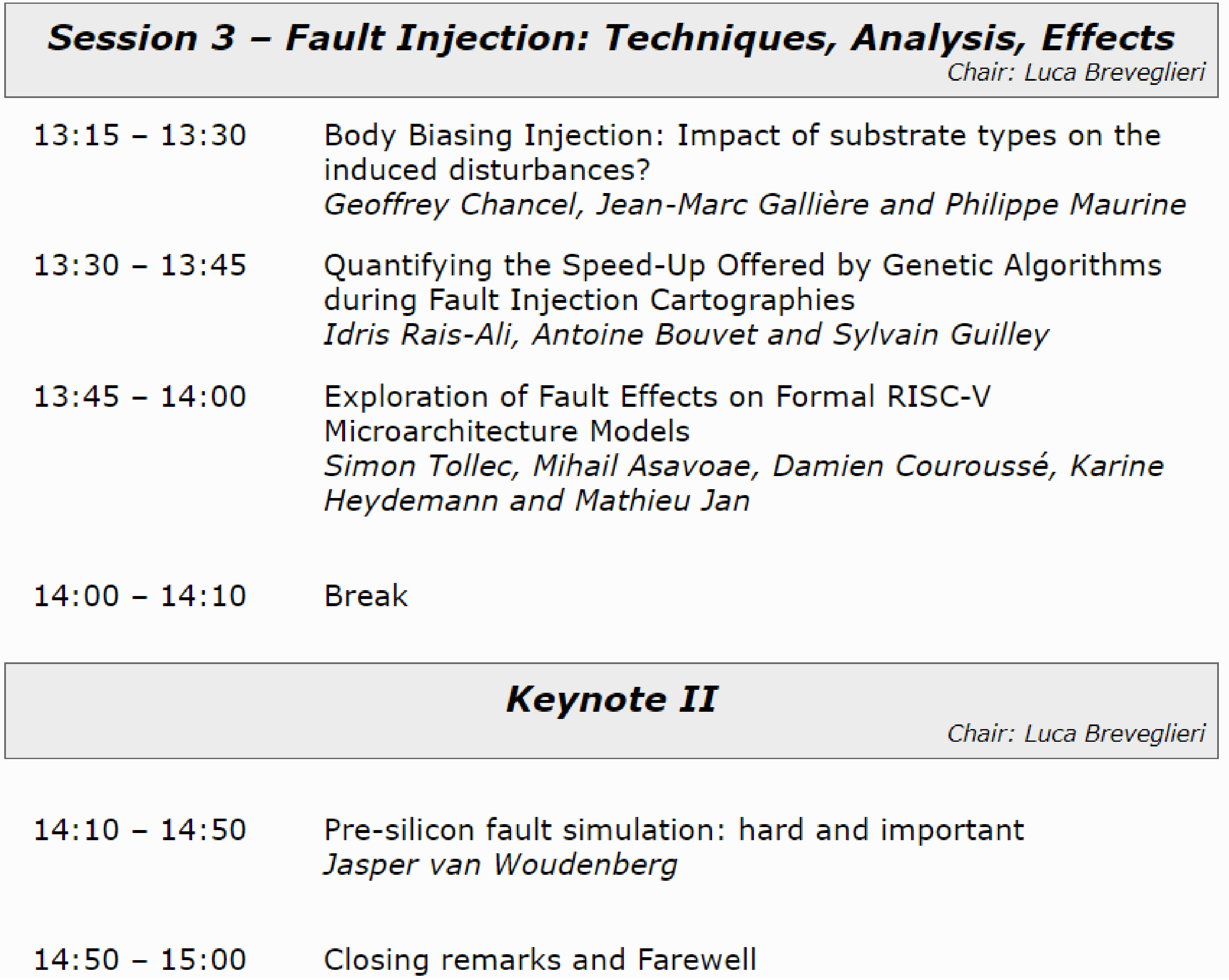

Session 3 – Fault Injection: Techniques, Analysis, Effects

Chair: Luca Breveglieri

13:15 – 13:30	Body Biasing Injection: Impact of substrate types on the induced disturbances? *Geoffrey Chancel, Jean-Marc Gallière and Philippe Maurine*
13:30 – 13:45	Quantifying the Speed-Up Offered by Genetic Algorithms during Fault Injection Cartographies *Idris Rais-Ali, Antoine Bouvet and Sylvain Guilley*
13:45 – 14:00	Exploration of Fault Effects on Formal RISC-V Microarchitecture Models *Simon Tollec, Mihail Asavoae, Damien Couroussé, Karine Heydemann and Mathieu Jan*
14:00 – 14:10	Break

Keynote II

Chair: Luca Breveglieri

14:10 – 14:50	Pre-silicon fault simulation: hard and important *Jasper van Woudenberg*
14:50 – 15:00	Closing remarks and Farewell

Congratulations to all the Authors
Wishing you a wonderful FDTC 2022!