

**FDTC 2008**

**Fault Diagnosis and  
Tolerance in Cryptography**

**5<sup>th</sup> Workshop**

# **on Fault Diagnosis and Tolerance in Cryptography**

**General Co-chairs:**

**Luca Breveglieri<sup>1</sup> and Israel Koren<sup>2</sup>**

**Program Co-chairs:**

**David Naccache,<sup>3</sup> Jean Pierre Seifert<sup>4</sup> and Shay Gueron<sup>5</sup>**

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<sup>2</sup> University of Massachusetts, Amherst, USA

<sup>3</sup> École Normale Supérieure de Paris, France

<sup>4</sup> Sisa, Samsung, USA

<sup>5</sup> University of Haifa and Intel, Israel

# 1st Workshop on Fault Diagnosis and Tolerance in Cryptography

Florence, ITALY, June 30, 2004

DSN 2004 – Dependable Systems and Networks

25 participants      No official proceedings



# 2nd Workshop on Fault Diagnosis and Tolerance in Cryptography

Edinburgh, UK , September 2, 2005

CHES 2005

118 participants      No official proceedings

**IEEE Transactions on Computers, Sept. 2006,**  
Special Section on FDTC



# 3rd Workshop on Fault Diagnosis and Tolerance in Cryptography

Yokohama, Japan

October 10, 2006

CHES 2006 – Workshop  
on Cryptographic  
Hardware and  
Embedded Systems

103 participants



The 1st FDTC to have official proceedings (by Springer-Verlag)

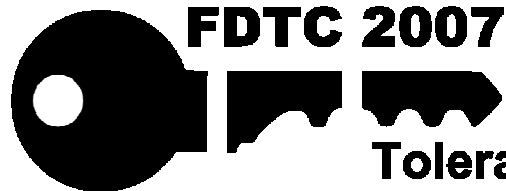
# 4th Workshop on Fault Diagnosis and Tolerance in Cryptography

Vienna, Austria

September 10, 2007

CHES 2007 – Workshop  
on Cryptographic  
Hardware and  
Embedded Systems

73 participants



**FDTC 2007**

**Fault Diagnosis and  
Tolerance in Cryptography**

Official proceedings by IEEE Computer Society Press

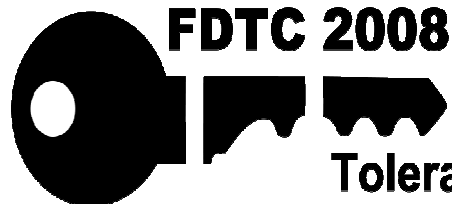
# 5th Workshop on Fault Diagnosis and Tolerance in Cryptography

Washington, DC. USA

August 10, 2008

CHES 2008 – Workshop  
on Cryptographic  
Hardware and  
Embedded Systems

84 participants



**Fault Diagnosis and  
Tolerance in Cryptography**

Official proceedings by IEEE Computer Society Press

8:30 – 8:45	Welcome and Opening Remarks <i>Israel Koren, Luca Breveglieri</i>
8:45 – 9:25	1st Invited Talk: Silicon-Level Solutions to counteract Passive and Active Attacks, <u><i>Sylvain Guilley</i></u> , <i>Laurent Sauvage, Jean-Luc Danger, Nidhal Selmane, Renaud Pacalet</i>
9:25 – 10:40	Session 1: Differential Fault Analysis chair: <i>G. Bertoni</i> 1. Improved Differential Fault Analysis on CLEFIA <u><i>Junko Takahashi, Toshinori Fukunaga</i></u> 2. Masking does not protect against Differential Fault Attacks <i>Helena Handschuh, Arnaud Boscher</i> 3. Comparative Analysis of Robust Fault Attack Resistant Architectures for Public and Private Cryptosystems <i>Konrad J. Kulikowski, Zhen Wang, Mark G. Karpovsky</i>
10:40 - 11:00	Coffee break
11:00 - 12:15	Session 2: Fault Security of HW and SW chair: <i>M. Joye</i> 1. A Practical Attack on Square and Multiply <u><i>Jörn-Marc Schmidt, Christoph Herbst</i></u> 2. Register Exploiting Hardware Performance Counters <u><i>Leif Uhsadel, Andy Georges, Ingrid Verbauwhede</i></u> 3. A Generic Fault Countermeasure providing Data and Program Flow Integrity, <u><i>Marcel Medwed, Jörn-Marc Schmidt</i></u>

12:15 – 13:45	Lunch (East Room)
13:45 – 14:25	2nd Invited Talk: Aspects of the Development of Fault Resistant Hardware <u>Wieland Fischer</u>
14:25 – 15:40	<p>Session 3: Fault Security of Elliptic Curves chair: J-P Seifert</p> <p>1. Fault-Tolerant ECC Unit using Parity preserving Logic Gates <u>Julien Francq, Jean-Baptiste Rigaud, Pascal Manet, Assia Tria</u></p> <p>2. On the Security of a Unified Countermeasure <u>Marc Joye</u></p> <p>3. Fault Attack on Elliptic Curve with Montgomery Ladder Implementation <u>Pierre-Alain Fouque, Reynald Lercier, Denis Réal, Frédéric Valette</u></p>
15:40 – 16:00	Coffee break
16:00 – 16:50	<p>Session 4: Fault Security of Public Key chair: A. Tria</p> <p>1. Security against Fault Injection Attacks for CRT-RSA Implementations <u>Alexandre Berzati, Cecile Canovas, Louis Goubin</u></p> <p>2. Attacks on Authentication and Signature Schemes involving Corruption of Public Key (Modulus) <u>Michael Kara-Ivanov, Eran Iceland, Aviad Kipnis</u></p>
16:50 – 17:00	Closing remarks and Farewell

***Program co-chairs:***

**David Naccache**

École Normale  
Supérieure de Paris,  
France

**Jean Pierre Seifert**

SISA, Samsung, USA

**Shay Gueron**

University of Haifa and  
Intel, Israel

***Program committee:***

<b>Jean-Marc Robert</b>	École Tech. Sup. Monreal
<b>David M'Raihi</b>	VeriSign
<b>Wieland Fischer</b>	Infineon Corporation, Germany
<b>Ramesh Karri</b>	Polytechnic University of Brooklyn, USA
<b>Christof Paar</b>	University of Ruhr, Germany
<b>Johannes Bloemer</b>	University of Paderborn
<b>Régis Leveugle</b>	TIMA Lab., France
<b>Çetin Kaya Koç</b>	Oregon State University, USA
<b>Guido Bertoni</b>	STMicroelectronics Corporation, Italy
<b>Nathalie Feyt</b>	Thalès Corporation, France
<b>Mathieu Ciet</b>	Private
<b>Christophe Bidan</b>	NISS, France
<b>Helena Handschuh</b>	Spansion
<b>Jean-Sebastien Coron</b>	Univ. of Luxembourg
<b>Kaiji Wu</b>	University of Illinois at Chicago, USA
<b>Julien Bouchier</b>	ISEN, France
<b>Benoit Chevallier-Mames</b>	DCSSI, France
<b>Onur Aciicmez</b>	Samsung, USA
<b>Jean-Louis Lanet</b>	University of Limoges
<b>Marc Joye</b>	Thomson
<b>Assia Tria</b>	CEA-LETI, France
<b>Pascal Guterman</b>	LAM, France



## Statistics

22 manuscripts submitted

11 papers accepted for presentation

- Participants:
- France 16
  - Japan 15
  - Germany 11
  - USA 8
  - S. Korea 7
  - UK, Netherlands 4
  - Austria, Czech Republic, Singapore 3
  - Belgium, Israel, Italy 2
  - Canada, Switzerland, Turkey 1