

Preliminary program

Sunday, May 9

16:00 – 19:00 Registration

Monday, May 10

8:30 - 9:45 Registration / Coffee

9:45 - 10:00 Welcome

10:00 – 11:00 **Invited talk**
Cyclic Properties of AES Round Functions
Yvo Desmedt (Florida State University)

11:00 – 12:30 Presentations I

More dual Rijndaels
Håvard Raddum
Boomerang attack on 5- and 6-round AES
Alex Biryukov
A three rounds property of the AES
Marine Minier

12:30 Lunch

14:00 - 15:00 **Invited talk**
Representations of Rijndael
Vincent Rijmen (IAIK, Graz University of Technology and Cryptomatic)

15:00 Coffee break

15:30 - 17:00 Presentations II

Efficient AES implementations on ASICs and FPGAs
Sandra Dominikus, Stefan Mangard, Norbert Pramstaller, Johannes Wolkerstorfer
Small size, low power, side channel-immune AES coprocessor
Elena Trichina, Tymur Korkishko
A CAM based associative processor array for parallel implementation of AES
Hua Li, Hang N. Zhang, Jianzhou Li

Tuesday, May 11

9:00 - 10:00 **Invited talk**
Some Algebraic Aspects of the Advanced Encryption Standard
Carlos Cid (Royal Holloway, University of London)

10:00 Coffee break

10:30 – 12:00 Presentations III

DFA on AES
Christophe Giraud

Refined analysis of bounds related to linear and differential cryptanalysis for the AES

Liam Keliher

Linearity of the AES key schedule

Frederik Armknecht, Stefan Lucks

- 12:00 - 13:00 **Invited talk**
General Principles of Algebraic Attacks and New Design Criteria for Components of Symmetric Ciphers
Nicolas T. Courtois (Axalto Smart Cards)
- 13:00 Lunch
- 16:00 – 18:00 Guided Tour in Arithmeum
Institute for Discrete Mathematics
Lennestrasse 2
53113 Bonn
<http://www.arithmeum.de/>
- 19:00 Social event / Banquet

Wednesday, May 12

- 9:00 - 10:00 **Invited talk**
To be named
Jean-Charles Faugere (University of Paris VI / INRIA, France)
- 10:00 Coffee break
- 10:30 – 12:00 Presentations IV
- An algebraic interpretation of AES-128
Ilia Toli, Alberto Zanoni
The inverse S-box, non-linear polynomial relations and cryptanalysis of block ciphers
Nicolas T. Courtois
- 12:00 - 13:00 **Invited talk**
NIST and AES in 2004
John Kelsey (NIST)
- 13:00 - 14:00 Discussion (open to the public)
- Moderation:
Peter Welchering (Wissenschaftspressekonferenz)
- Participants:
Nicolas T. Courtois (Axalto Smart Cards)
Hans Dobbertin (ITS, Ruhr-University Bochum / HGI)
John Kelsey (NIST)
Vincent Rijmen (IAIK, Graz University of Technology and Cryptomathic)
- 14:00 Lunch
- 16:00 End