

December 12th: Workshop

Morning Session



08:30-09:30 Hrs

- Registration
- Venue: Sapphire Ballroom

**Tutorial
Talk**

• 09:30-11:00 Hrs

- **Lightweight Cryptography for RFID Systems**
- **Guang Gong**



11:00-11:30 Hrs

- Tea Break
- Venue: Sapphire Ballroom-1

**Tutorial
Talk**

• 11:30-13:00 Hrs

- **Lightweight Cryptography for RFID Systems**
- **Guang Gong**



13:00 -14:00 Hrs

- Lunch Break
- Venue: Sapphire Ballroom-1

December 12th: Workshop

Afternoon Session

Tutorial Talk

- **14:00-15:30 Hrs**
 - Pairing Based Cryptography
 - Sanjit Chatterjee
-



15:30-16:00 Hrs

- Tea Break
 - Venue: Sapphire Ballroom-1
-

Tutorial Talk

- **16:00-17:30 Hrs**
 - Pairing Based Cryptography
 - Sanjit Chatterjee
-

December 13th: Morning Session



08:30-09:30 Hrs

- Registration
- Venue: Marriott Convention Center



09:30-11:00 Hrs

- Inaugural Function
- Venue: Marriott Convention Center



11:00-11:30 Hrs

- High Tea
- Venue: Marriott Convention Center

Invited Talk

Chair : TBA

• **11:30-12:30 Hrs**

- Getting a Few Things Right and Many Things Wrong
- Neal Koblitz

Session 1

Security of RSA
and Multivariate
Schemes
Chair: TBA

• **12:45-13:15 Hrs**

- Partial Key Exposure Attack on RSA -- Improvements for Limited Lattice Dimensions

• Santanu Sarkar, Sourav Sen Gupta, and Subhamoy Maitra

• **13:15-13:45 Hrs**

- Towards Provable Security of the Unbalanced Oil and Vinegar Signature Scheme under Direct Attacks

• Stanislav Bulygin, Albrecht Petzoldt, and Johannes Buchmann

• **13:45-14:15 Hrs**

- CyclicRainbow - A Multivariate Signature Scheme with a Partially Cyclic Public Key

• Albrecht Petzoldt, Stanislav Bulygin, and Johannes Buchmann

December 13th: Afternoon Session



14:15 -15:15 Hrs

- Lunch Break
- Marriott Convention Center

Session 2

Security Analysis,
Pseudorandom
Permutations and
Applications

Chair: TBA

- **15:15-15:45 Hrs**
 - Combined Security Analysis of the One- and Three-pass Unified Model Key Agreement Protocols
 - Sanjit Chatterjee, Alfred Menezes, and Berkant Ustaoglu
- **15:45-16:15 Hrs**
 - Indifferentiability Beyond the Birthday Bound for the Xor of Two Public Random Permutations
 - Avradip Mandal, Jacques Patarin, and Valerie Nachev
- **16:15-16:45 Hrs**
 - The Characterization of Luby-Rackoff and Its Optimum Single-Key Variants
 - Mridul Nandi
- **16:45-17:15 Hrs**
 - Versatile Prêt à Voter: Handling Multiple Election Methods with a Unified Interface
 - Zhe Xia, Chris Culnane, James Heather, Hugo Jonker, Peter Y A Ryan, Steve Schneider, and Sriramkrishnan Srinivasan



17:15-17:45 Hrs

- Tea Break
- Venue: Marriott Convention Center

December 14th: Morning Session

Invited Talk

Chair : TBA

- **09:30-10:30 Hrs**
 - Cryptographic Hash Functions: Theory and Practice
 - Bart Preneel



10:30-11:00 Hrs

- Tea Break
- Marriott Convention Center

Session 3

Attacks on Block
Ciphers and Stream
Ciphers
Chair: TBA

- **11:00-11:30 Hrs**
 - New Boomerang Attacks on ARIA
 - Ewan Fleischmann, Christian Forler, Michael Gorski, and Stefan Lucks
- **11:30-12:00 Hrs**
 - Algebraic, AIDA/Cube and Side Channel Analysis of KATAN Family of Block Ciphers
 - Gregory V Bard, Nicolas T Courtois, Jorge Nakahara Jr, Pouyan Sepehrdad, and Bingsheng Zhang
- **12:00-12:30 Hrs**
 - The Improbable Differential Attack: Cryptanalysis of Reduced Round CLEFIA
 - Cihangir Tezcan
- **12:30-13:00 Hrs**
 - Greedy Distinguishers and Nonrandomness Detectors
 - Paul Stankovski



13:00 -14:00 Hrs

- Lunch Break
- Venue: Marriott Convention Center

December 14th: Afternoon Session

Session 4

Hash Functions
Chair: TBA

- 14:00-14:30 Hrs
 - Cryptanalysis of Tav-128 Hash function
 - Ashish Kumar, Somitra Kumar Sanadhya, Praveen Gauravaram, Masoumeh Safkhani, and Majid Naderi
- 14:30-15:00 Hrs
 - Near-Collisions for the Reduced Round Versions of Some Second Round SHA-3 Compression Functions using Hill Climbing
 - Meltem Sönmez Turan, and Erdener Uyan
- 15:00-15:30 Hrs
 - Speeding Up The Wide-pipe: Secure and Fast Hashing
 - Mridul Nandi, and Souradyuti Paul



15:30-16:00 Hrs

- Tea Break
- Venue: Marriott Convention Center

Session 5

Fast Cryptographic
Computation
Chair : TBA

- 16:00-16:30 Hrs
 - Polynomial Multiplication over Binary Fields Using Charlier Polynomial Representation with Low Space Complexity
 - Sedat Akleylek, Murat Cenk, and Ferruh Özbudak
- 16:30-17:00 Hrs
 - Random Euclidean Addition Chain Generation and Its Application to Point Multiplication
 - Fabien Herbaut, Pierre-Yvan Liardet, Nicolas Méloni, Yannick Téglia, and Pascal Véron

December 15th: Morning Session

Session 6

Cryptanalysis of
AES
Chair: TBA

- **09:30-10:00 Hrs**
 - **Attack on a Higher-Order Masking of the AES Based on Homographic Functions**
 - **Thomas Roche, and Emmanuel Prouff**
- **10:00-10:30 Hrs**
 - **Improved Impossible Differential Cryptanalysis of 7-round AES-128**
 - **Hamid Mala, Mohammad Dakhilalian, Vincent Rijmen, and Mahmoud Modarres-Hashemi**
- **10:30-11:00 Hrs**
 - **Cryptanalysis of a Perturbated White-Box AES Implementation**
 - **Yoni De Mulder, Brecht Wyseur, and Bart Preneel**



11:00-11:30 Hrs

- Tea Break
- Venue: Sapphire Ballroom- 1

Session 7

Efficient
Implementation
Chair: TBA

- **11:30-12:00 Hrs**
 - **A Program Generator for Intel AES-NI Instructions**
 - **Raymond Manley, and David Gregg**
- **12:00-12:30 Hrs**
 - **ECC2K-130 on NVIDIA GPUs**
 - **Daniel J Bernstein, Hsieh-Chung Chen, Chen-Mou Cheng, Tanja Lange, Ruben Niederhagen, Peter Schwabe, and Bo-Yin Yang**
- **12:30-13:00 Hrs**
 - **One Byte per Clock: A Novel RC4 Hardware**
 - **Sourav Sen Gupta, Koushik Sinha, Subhamoy Maitra, and Bhabani P. Sinha**



13:00 -14:00 Hrs

- Lunch Break
- Venue: Sapphire Ballroom- 1