

# *CRYPTO 2006*

## **Final Program**

All events in Campbell Hall  
(unless otherwise noted)



### *Sunday, August 20, 2006*

- 17:00 - 20:00    **Registration**, Anacapa Formal Lounge  
(registration continues outside Campbell Hall starting Monday morning)
- 17:30 - 21:30    **Dinner Reception**, Anacapa/Santa Cruz Ocean Lawn

## ***Monday, August 21, 2006***

07:30 - 08:45 **Breakfast** - De La Guerra Commons

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09:00 - 09:10 **Opening Remarks**  
Josh Benaloh, General Chair

### **Session 1**

Chair *Moni Naor*

09:10 - 09:35 ***Rigorous Bounds on Cryptanalytic Time/Memory Tradeoffs***  
Elad Barkan, Eli Biham, and Adi Shamir

09:35 - 10:00 ***On the Power of the Randomized Iterate* Best Paper Award**  
Iftach Haitner, Danny Harnik, and Omer Reingold

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10:00 - 10:30 **Morning Break**

### **Session 2**

Chair *Yiqun Lisa Yin*

10:30 - 10:55 ***Strengthening Digital Signatures via Randomized Hashing***  
Shai Halevi and Hugo Krawczyk

10:55 - 11:20 ***Round-Optimal Composable Blind Signatures in the Common Reference String Model***  
Marc Fischlin

### **Session 3**

Chair *Yiqun Lisa Lin*

11:20 - 11:45 ***On Signatures of Knowledge***  
Melissa Chase and Anna Lysyanskaya

11:45 - 12:10 ***Non-interactive Zaps and New Techniques for NIZK***  
Jens Groth, Rafail Ostrovsky, and Amit Sahai

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12:15 - 13:45 **Lunch** - De La Guerra Commons

## Session 4

Chair *Cynthia Dwork*

14:00 - 14:25 ***Rankin's Constant and Blockwise Lattice Reduction***  
Nicolas Gama, Nick Howgrave-Graham, Henrik Koy, and Phong Q. Nguyen

## Session 5 *Invited Talk*

Chair *Cynthia Dwork*

14:25 - 15:25 ***Lattice-Based Cryptography***  
Oded Regev

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15:25 - 15:55 **Afternoon Break**

## Session 6

Chair *Arjen Lenstra*

15:55 - 16:20 ***A Method for Making Password-Based Key Exchange Resilient to Server Compromise***  
Craig Gentry, Philip MacKenzie, and Zulfikar Ramzan

16:20 - 16:45 ***Mitigating Dictionary Attacks on Password-Protected Local Storage***  
Ran Canetti, Shai Halevi, and Michael Steiner

## Session 7

Chair *Arjen Lenstra*

16:45 - 17:10 ***Rationality and Adversarial Behavior in Multi-Party Computation***  
Anna Lysyanskaya and Nikos Triandopoulos

17:10 - 17:35 ***When Random Sampling Preserves Privacy***  
Kamalika Chaudhuri and Nina Mishra

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17:45 - 19:30 **Dinner** - De La Guerra Commons

19:30 - 21:30 **Dessert Reception**, Anacapa/Santa Cruz Ocean Lawn

## ***Tuesday, August 22, 2006***

07:30 - 08:45 **Breakfast** - De La Guerra Commons

### **Session 8**

Chair *Yehuda Lindell*

09:00 - 09:25 ***Tight Bounds for Unconditional Authentication Protocols in the Manual Channel and Shared Key Models***

Moni Naor, Gil Segev, and Adam Smith

09:25 - 09:50 ***Robust Fuzzy Extractors and Authenticated Key Agreement from Close Secrets***

Yevgeniy Dodis, Jonathan Katz, Leonid Reyzin, and Adam Smith

09:50 - 10:15 ***On Forward-Secure Storage***

Stefan Dziembowski

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10:15 - 10:45 **Morning Break**

### **Session 9**

Chair *Jonathan Katz*

10:45 - 11:10 ***Construction of a Non-Malleable Encryption Scheme from Any Semantically Secure One***

Rafael Pass, abhi shelat, and Vinod Vaikuntanathan

11:10 - 11:35 ***Anonymous Hierarchical Identity-Based Encryption (Without Random Oracles)***

Xavier Boyen and Brent Waters

11:35 - 12:00 ***Fast Algorithms for the Free Riders Problem in Broadcast Encryption***

Zulfikar Ramzan and David Woodruff

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12:15 - 13:45 **Lunch** - De La Guerra Commons

## *Free Afternoon*

14:00 - 17:00 **Tourism** - Santa Barbara  
**Birds of a Feather Sessions** - See Schedule in Anacapa Lobby  
**Soccer** - Lawn

17:45 - 19:30 **Dinner** - De La Guerra Commons

## *Rump Session*

18:45 - 23:00 **Snacks and Open Bar** - University Center Courtyard

19:30 - 19:40 **New IACR Fellows Induction Ceremony** - University Center Corwin Pavilion

19:40 - 19:45 **Crypto 2006 T-shirt Solution and Prize Drawing** - University Center Corwin Pavilion

19:45 - Late **Rump Session** - University Center Corwin Pavilion

## Wednesday, August 23, 2006

07:30-08:45 **Breakfast** - De La Guerra Commons

### Session 10

Chair *Phong Nguyen*

09:00-09:25 ***The Number Field Sieve in the Medium Prime Case***  
Antoine Joux, Reynald Lercier, Nigel Smart, and Frederik Vercauteren

09:25-09:50 ***Inverting HFE is Quasipolynomial***  
Louis Granboulan, Antoine Joux, and Jacques Stern

09:50-10:15 ***Cryptanalysis of  $2R^-$  Schemes***  
Jean-Charles Faugère, and Ludovic Perret

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10:15-10:45 **Morning Break**

### Session 11

Chair *Ivan Damgård*

10:45-11:10 ***Receipt-Free Universally-Verifiable Voting With Everlasting Privacy***  
Tal Moran and Moni Naor

### Session 12 *Invited Talk*

Chair *Ivan Damgård*

11:10-12:10 ***Cryptographic Protocols for Electronic Voting***  
David Wagner

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12:15-13:45 **Lunch** - De La Guerra Commons

## Session 13

Chair *Yuval Ishai*

- 14:00 - 14:25 ***Asymptotically Optimal Two-Round Perfectly Secure Message Transmission***  
Saurabh Agarwal, Ronald Cramer, and Robbert de Haan
- 14:25 - 14:50 ***Random Selection with an Adversarial Majority***  
Ronen Gradwohl, Salil Vadhan, and David Zuckerman
- 14:50 - 15:15 ***Oblivious Transfer and Linear Functions***  
Ivan Damgård, Serge Fehr, Louis Salvail, and Christian Schaffner

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15:15 - 15:45 **Afternoon Break**

## Session 14

Chair *Moni Naor*

- 15:45 - 16:10 ***On Expected Constant-Round Protocols for Byzantine Agreement***  
Jonathan Katz and Chiu-Yuen Koo
- 16:10 - 16:35 ***Robust Multiparty Computation with Linear Communication Complexity***  
Martin Hirt, Jesper Buus Nielsen
- 16:35 - 17:00 ***On Combining Privacy with Guaranteed Output Delivery in Secure Multiparty Computation***  
Yuval Ishai, Eyal Kushilevitz, Yehuda Lindell, and Erez Petrank

## ***IACR Membership Meeting***

Chair *Bart Preneel, IACR Vice-President*

17:05 - 17:50 **IACR Membership Meeting - Campbell Hall**

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18:00 - 20:15 **Beach Barbecue - Goleta Beach**

20:00 - 22:30 **Crypto Café - Anacapa Formal Lounge**

## Thursday, August 24, 2006

07:30 - 08:45 **Breakfast** - De La Guerra Commons

### Session 15

Chair *Hovav Shacham*

09:00 - 09:25 **Scalable Secure Multiparty Computation**  
Ivan Damgård and Yuval Ishai

09:25 - 09:50 **Algebraic Geometric Secret Sharing Schemes and Secure Multi-Party Computations over Small Fields**  
Hao Chen, Ronald Cramer

09:50 - 10:15 **Automated Security Proofs with Sequences of Games**  
Bruno Blanchet and David Pointcheval

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10:15 - 10:45 **Morning Break**

### Session 16

Chair *Bart Preneel*

10:45 - 11:10 **On Robust Combiners for Private Information Retrieval and Other Primitives**  
Remo Meier and Bartosz Przydatek

11:10 - 11:35 **On the Impossibility of Efficiently Combining Collision Resistant Hash Functions**  
Dan Boneh and Xavier Boyen

11:35 - 12:00 **On the Higher Order Nonlinearities of Algebraic Immune Functions**  
Claude Carlet

12:00 - 12:25 **New Proofs for NMAC and HMAC: Security without Collision-Resistance**  
Mihir Bellare

12:25 **Conference Adjourns**

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12:15 - 13:45 **Lunch** - De La Guerra Commons