

Rump Session 2019



# The Fellowship of the Rump Crypto'19

A Celebration

Get ready: Sasha Boldyreva and Daniele Micciancio

# Rump Session 2019



# Opening

Martijn Stam

Simula UiB

Get ready: Muthuramakrishnan Venkitasubramaniam



Helger says hello!



## Borg Early Career Award (BECA)

Nadia Heninger (recipient of the award)

University of California, San Diego

Get ready: Douglas Stebila

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# Cards Against Cryptography

Anonymous

Anonymous

Get ready: Dankrad Feist

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# Cryptanalyzing the Legendre PRF

Dankrad Feist

Ethereum Foundation

Get ready: Greg Rose

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# Trivial Real World Crypto

Greg Rose

Deckard Technologies, Inc.

Get ready: Christian Cachin



# The Grand Unified Theory of Cryptology

Christian Cachin

University of Bern

Get ready: Chris Peikert

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# He Gives C-Sieves on the CSIDH

Chris Peikert

University of Michigan

Get ready: Daniel Wichs

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## New Conference on Information-Theoretic Cryptography (ITC)

Benny Applebaum, Ivan Damgård, Yevgeniy Dodis, Yuval Ishai, Ueli Maurer, Kobbi Nissim, Krzysztof Pietrzak, Manoj Prabhakaran, Adam Smith, Yael Kalai, Stefano Tessaro, Vinod Vaikuntanathan, Hoeteck Wee, Daniel Wichs, Mary Wootters, Chaoping Xing, Moti Yung



# Adjournment of the 2019 Fellowship of the Rump

We reconvene: 20:45



# Adjournment of the 2019 Fellowship of the Rump

We continue: now

Get ready: Edoardo Persichetti

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# PQC Wiki

Edoardo Persichetti

FAU

Get ready: Nicolas Sendrier

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# decodingchallenge.org

Julien Lavauzelle, Matthieu Lequesne, Nicolas Aragon

Université de Rennes 1, Sorbonne Université and Inria, Université de Limoges

Get ready: Michael Riabzev



# STARK friendly hash challenge

Tomer Ashur, Eli Ben-Sasson, Lior Goldberg, Michael Riabzev

KU Leuven, StarkWare Industries

Get ready: Saravanan Musuwathi Kesavan



# DH(E) and the leading zeros in the premaster secret in TLS 1.1/1.2

Saravanan Musuwathi Kesavan

F5 Networks

Get ready: Nadia Heninger

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48ce563f89a0ed9414f5aa28ad0d96d6

Nadia Heninger, Travis Scholl, Dan Shumow

UC San Diego, UC Irvine, Microsoft Research

Get ready: Yongha Son



## On parameter choices of Round5

Yongha Son

Seoul National University

Get ready: Mehdi Tibouchi



You are strong, FALCON,  
but we will break you!

Pierre-Alain Fouque, Paul Kirchner, Mehdi Tibouchi, Alexandre Wallet, Yang Yu  
Univ Rennes and NTT Corporation

Get ready: Yevgeniy Dodis



# Implementing Signal

Yi Tang, Yevgeniy Dodis

New York University

Get ready: Josh Benaloh

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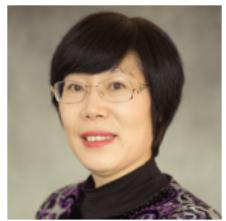


# Microsoft's ElectionGuard

Josh Benaloh

Microsoft Research

Get ready: Dan Shumow



# RSA Encryption

Dan Shumow, Brian LaMacchia

Microsoft Research

Get ready: Kelly Olson



# Bringing Verifiable Delay Functions Into Production

Kelly Olson

Supranational, VDF Research

Get ready: Vassilis Zikas

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# OPA!!!

Muhammad Ishaq, Ana Milanova, Vassilis Zikas

University of Edinburgh, RPI

Get ready: Vassilis Zikas

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# PKC 2020 in Edinburgh

Vassilis Zikas

PKC General co-Chair



# Adjournment of the 2019 Fellowship of the Rump

We reconvene: 22:00



# Adjournment of the 2019 Fellowship of the Rump

We continue: now

Get ready: John Kelsey



## NIST Update

John Kelsey, Luis Brandao, Meltem Sonmez Turan, Lily Chen, Dustin Moody, Elaine Barker

NIST

Get ready: Hilarie Orman

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## Key Words

Hilarie Orman

Purple Streak

Get ready: Chris Peikert



# Algebraically Structured LWE, Revisited

Chris Peikert, Zachary Pepin

University of Michigan

Get ready: Erica Blum



Synchronous Consensus with Optimal Asynchronous Fallback: The

# Crypto Chickens Go to the Beach

Erica Blum, Jonathan Katz, Julian Loss

University of Maryland College Park, University of Maryland College Park,  
Ruhr-Universität Bochum

Get ready: Christian Cachin



# Asymmetric distributed trust

Christian Cachin, Björn Tackmann

University of Bern, IBM - Research



# Collusion-Preserving Computation without a Mediator

Michele Ciampi, Yun Lu, Vassilis Zikas

University of Edinburgh

Get ready: Nikolaos Makriyannis



# On the Round Complexity of Randomized Byzantine Agreement

Ran Cohen, Iftach Haitner, Nikolaos Makriyannis, Matan Orland, Alex Samorodnitsky

Northeastern, TAU, Technion, HUJI

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# DARPA Cryptographic Research

Joshua Baron

DARPA

Get ready: Valeria Nikolaenko



# Winkle: Protecting Proof-of-Stake Blockchains From Long-Range Attacks

Sarah Azouvi, George Danezis, Valeria Nikolaenko

Calibra-Facebook

Get ready: Olivier Blazy



# A new Paradigm Shift for the Crypto BlockChain: Proof of Ability

Olivier Blazy, Orr Dunkelman

Université de Limoges, Haifa University

Get ready: Valeriya Idrisova

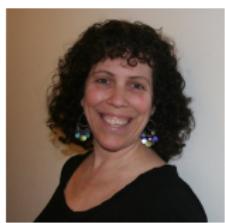


# International Olympiad in Cryptography NSUCRYPTO

Valeriya Idrisova, Natalia Tokareva, Anastasiya Gorodilova et al.

Sobolev Institute of Mathematics, Novosibirsk State University

Get ready: Bram Cohen



# The Chia Proof of Space construction and implementation competition

Bram Cohen

Chia Network



## Disbandment of the 2019 Fellowship of the Rump