International Association for Cryptologic Research

Christian Cachin
President, IACR

Crypto 2019

Membership meeting

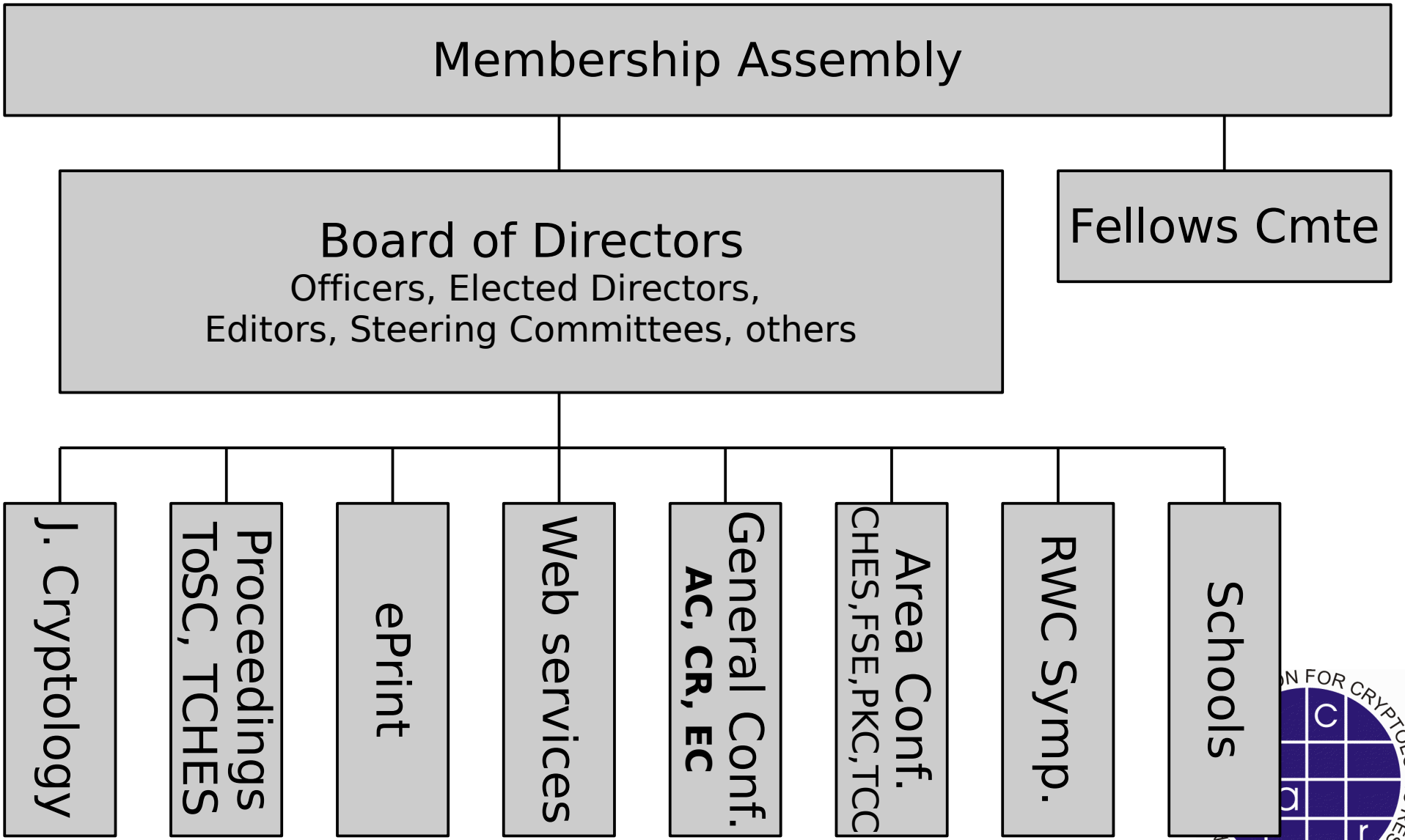
- About IACR
  - Publications
  - Conferences
  - Journal of Cryptology
- Financial report
- Membership report
- Online services
- Recent developments
- Open discussion
- Future events

IACR

- International Association for Cryptologic Research
  - Purpose is to further research in cryptology and related fields
  - 1983
  - Incorporated as non-profit organization in Nevada (US)

- For all information – iacr.org/docs/

One picture


Membership Assembly
Board of Directors
Officers, Elected Directors,
Editors, Steering Committees, others
Fellows Cmte
J. Cryptology
Proceedings
ToSC, TCHES
ePrint
Web services
General Conf.
AC, CR, EC
Area Conf.
CHES,FSE,PKC,TCC
RWC Symp.
Schools

Membership

- Everyone attending an IACR event becomes a member in next calendar year
- Membership fee of $50 ($25 students)
- You can also become a member online
- If you did not attend a conference last year, renew your membership online for this year until September

Board of Directors

- 4 Officers
- 9 elected Directors
- Appointed Directors
  - Includes General Chairs of EC/CR/AC conferences
- Observers
  - Representing Steering Committees of Asiacrypt and Area Conferences (CHES, FSE, PKC, TCC, RWC)

- iacr.org/bod.html

- Each year you elect 3 Directors
  - This year also 4 Officers
  - iacr.org/elections/2019/

Officers
Christian Cachin, President (2017-2019)
Greg Rose, Vice President (2017-2019)
Brian LaMacchia, Treasurer (2017-2019)
Joppe Bos, Secretary (2017-2019)

Directors
Michel Abdalla, Director (2019-2021)
Masayuki Abe, Director (2018-2020)
Shai Halevi, Director (2017-2019)
Nadia Heninger, Director (2019-2021)
Tancrède Lepoint, Director (2018-2020)
Anna Lysyanskaya, Director (2019-2021)
Bart Preneel, Director (2017-2019)
Francois-Xavier Standaert, Director (2017-2019)
Moti Yung, Director (2018-2020)

Other Board Members
Lejla Batina, Eurocrypt 2020 General Chair (2019-2020)
Marc Fischlin, Eurocrypt 2019 General Chair (2018-2019)
Kwangjo Kim, Asiacrypt 2020 General Chair (2019-2020)
Mitsuru Matsui, Asiacrypt 2019 General Chair (2018-2019)
Kenny Paterson, Editor-in-Chief, Journal of Cryptology (2017-2019)
Leo Reyzin, Crypto 2020 General Chair (2019-2020)
Mike Rosulek, Communications Secretary (2017-2020)
Douglas Stebila, Membership Secretary (2017-2020)
Muthu Venkitasubramaniam, Crypto 2019 General Chair (2018-2019)

Journal of Cryptology

- Current editor in Chief
  - Kenny Paterson
- Read online
  - iacr.org/publications/access.php
- Paper delivery is opt-in for $40 extra
  - When you pay yearly membership

https://iacr.org/jofc/

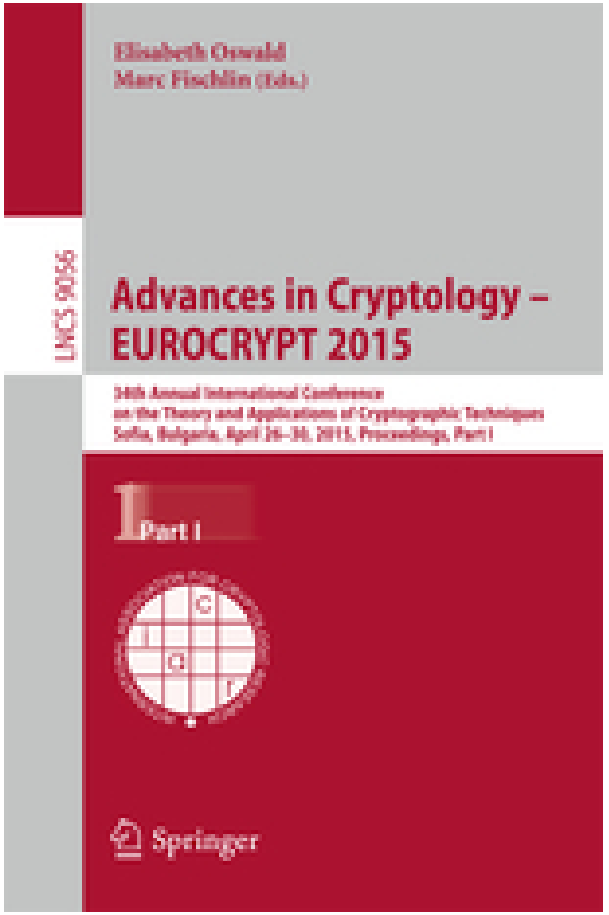
IACR Transactions on Symmetric Cryptology (ToSC)

- FSE-ToSC are a conference-journal hybrid
  - ToSC Publishes the proceedings of FSE
  - Publication in ToSC gives presentation at FSE
- Journal with rapid and strict review schedule
- Online only, published by IACR & RUB library
  - tosc.iacr.org
- **Gold open access**

IACR Transactions on Cryptographic Hardware and Embedded Systems (TCHES)

- CHES-TCHES are a conference-journal hybrid
  - TCHES Publishes the proceedings of CHES
  - Publication in TCHES gives presentation at CHES
- Journal with rapid and strict review schedule
- Online only, published by IACR & RUB library
  - tches.iacr.org
- **Gold open access**

Conference proceedings



- ASIACRYPT
- CRYPTO
- EUROCRYPT
- PKC
- TCC

- Online for members
  - www.iacr.org/proceedings
- Gold open-acccess ≥ 3yr
  - link.springer.com

Cryptology ePrint Archive

- eprint.iacr.org
- Preprints, full versions, corrected versions, revised versions ...
  - Record is 124 revisions, then withdrawn
- Joppe Bos & Tancrède Lepoint, editors

Cryptology schools

- IACR reviews proposals and supports some schools each year
  - Educational, typically 1-week, focus on learning (Summer/Winter/Spring/Fall school)
  - Financial support for speakers etc. and publicity
- Upcoming schools
  - Two were approved last Sunday…
- Next proposals are due December 31
  - IACR Schools Committee
  - www.iacr.org/schools/

IACR Distinguished Lecture

The annual IACR Distinguished Lecture is awarded by the IACR to people who have made important contributions to cryptology research.

The lecture alternates from Eurocrypt to Crypto to Asiacrypt.

2020, Crypto – Silvio Micali
2021, Asiacrypt – TBA

IACR Fellows

IACR Fellows are outstanding IACR members, recognized for technical and professional contributions that

- Advance the science, technology, and practice of cryptology and related fields;
- Promote the free exchange of ideas and information about cryptology and related fields;
- Develop and maintain the professional skill and integrity of individuals in the cryptologic community;
- Advance the standing of the cryptologic community in the wider scientific and technical world and promote fruitful relationships between the IACR and other organizations.

IACR Fellows – 2019

- Jonathan Katz
- Kaoru Kurosawa
- Daniele Micciancio
- Vincent Rijmen
- Amit Sahai
- Xiaoyun Wang

Nominations for 2020 Fellows are due by
15 November 2019 !

Information will be on website
www.iacr.org/fellows/

Test-of-time award

- Given yearly for each one of the three IACR General Conferences
  - Eurocrypt, Crypto, and Asiacrypt
- For a paper with a lasting impact on the field
- Award at conference Y-crypt in year X to honor a paper published at Y-crypt in year X - 15
- Selected by a yearly committee
  - Two members appointed by Board
  - Three program chairs of year X
- https://iacr.org/testoftime/

Test-of-time award 2019

- Fuzzy Extractors: How to Generate Strong Keys from Biometrics and Other Noisy Data
  - Yevgeniy Dodis, Leonid Reyzin, Adam D. Smith
  - Eurocrypt 2004

- Multicollisions in Iterated Hash Functions. Application to Cascaded Constructions
  - Antoine Joux
  - Crypto 2004

- How Far Can We Go Beyond Linear Cryptanalysis?
  - Thomas Baignères, Pascal Junod, Serge Vaudenay
  - Asiacrypt 2004

- https://iacr.org/testoftime/

Financial report

- Brian LaMacchia

Membership report

- Douglas Stebila

Online services

iacr.org
ia.cr

Thanks to the team!

- Mike Rosulek
  - For being Communi-cations Secretary 2014-2019

- Foteini Baldimtsi
  - For becoming the new Communications Secretary

IACR News

Here you can see all recent updates to the IACR webpage. These updates are also available:

via email via RSS feed via Twitter via Weibo via Facebook

Filter news by All news

20 May 2019

Pixel: Multi-signatures for Consensus

Manu Drijvers, Sergey Gorbunov, Gregory Neven, Hoeteck Wee

ePrint Report

Multi-signatures enable a group of signers to jointly generate a short and efficiently verifiable signature on a common message. They are commonly used in proof-of-stake and permissioned blockchains, where reaching consensus usually involves a committee of nodes signing the next block. Adaptive corruptions, however, pose a common threat to such designs, because the adversary can corrupt committee members after they certified a block (and possibly after they sold their stake) and use their signing keys to fork the chain by certifying a different block, thereby undermining the

Expand ▼

New Code-Based Privacy-Preserving Cryptographic Constructions

Khoa Nguyen, Hanh Tang, Huaxiong Wang, Neng Zeng

ePrint Report

Code-based cryptography has a long history but did suffer from periods of slow development. The field has recently attracted a lot of attention as one of the major branches of post-quantum cryptography. However, its subfield of privacy-preserving cryptographic constructions is still rather underdeveloped, e.g., important building blocks such as zero-knowledge range proofs and set membership proofs, and even proofs of knowledge of

IACR

Open Positions in Cryptology

Submit a job

IACR provides a listing of open positions with a focus on cryptology. To advertise a job opportunity, please use the button to the right.

Submissions should include the organization, title, description, a URL for further information, contact information, and a closing date (which may be "continuous"). The job will be posted for six months or until the closing date. Submissions in other formats than text will not be posted. There can be no attachments.

This is intended to be a free service from an IACR member to the IACR membership. The content of the job posting is the responsibility of the person requesting the posting and not the IACR. Commercial enterprises who want to advertise their openings should identify at least one of their employees who is a member of

IACR

CryptoDB

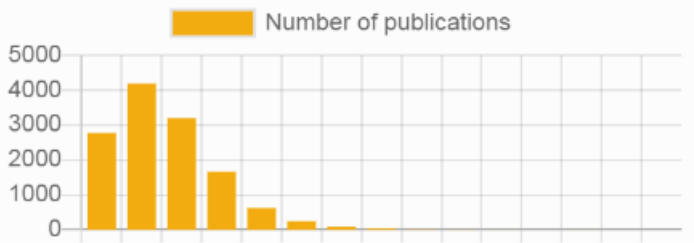
General Publications People

Collaboration between authors

This page contains statistics about coauthorship, including the most coauthored papers, the authors with the most coauthors, and the distribution of the number of authors.

Distribution of number of authors on a paper

As of 2019, there is a single paper with 17 authors.



International Association for Cryptologic Research

Events Publications News Services Members About

Suggestions from local search as you type. Hit enter to search with Google.

Nigel

Search

Nigel P. Smart
Katholieke Universiteit Leuven

Results 2011
News: Election

Dawson, Halevi, Shoup, Smart named 2016 IACR Fellows
News: Award

Future Directions in Computing on Encrypted Data
News: Event: Bristol, United Kingdom, November 10 - November 11

IACR Publication Reform - Open Discussion
News: Announcement

CAPA: The Spirit of Beaver Against Physical Attacks
CRYPTO 2018, Oscar Reparaz, Lauren De Meyer, Begül Bilgin, Victor Arribas, Svetla Nikova, Ventzislav Nikov, Nigel P. Smart

Modes of Operation Suitable for Computing on Encrypted Data
TOSC 2017, Dragos Rotaru, Nigel P. Smart, Martijn Stam

More Efficient Constant-Round Multi-party Computation from BMR and SHE
TCC 2016, Yehuda Lindell, Nigel P. Smart, Eduardo Soria-Vazquez

Efficient Constant Round Multi-party Computation Combining BMR and SPDZ
CRYPTO 2015, Yehuda Lindell, Benny Pinkas, Nigel P. Smart, Avishay Yanai

Benchmarking Privacy Preserving Scientific Operations
Eprint: 2019/354, Abdelrahaman Aly, Nigel P. Smart

Report

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Expand ▼

Thanks (2) to the team!

- Kay McKelly

- Kevin McCurley

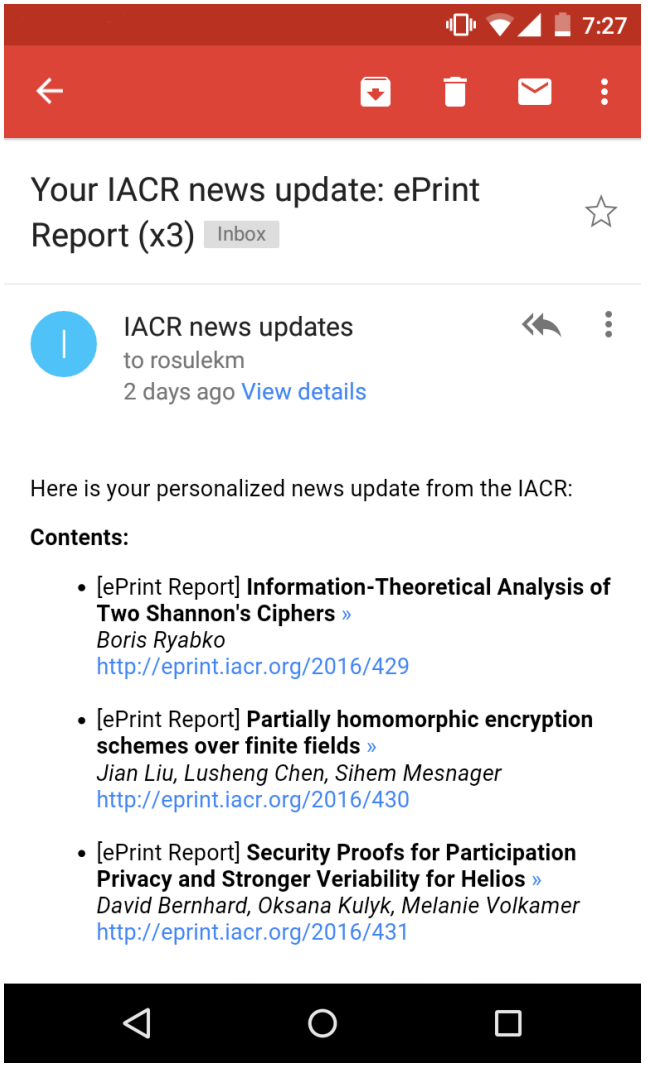
All online services

- Cryptology ePrint Archive
- Access to journal and proceedings (Springer & IACR versions)
- Open positions in cryptology
- Calendar of events
- Bibliography (CryptoDB), Petitions, PhD database ...

IACR news alerts

- Receive alerts about:
  - General announcements
  - New eprint reports
  - Job openings in cryptology
  - New events (conferences)

- Receive alerts via:
  - Facebook: fb.com/theiacr
  - Twitter: twitter.com/iacr_news
  - Weibo: weibo.com/iacr
  - Email: iacr.org/news



IACR publications portal

ia.cr/pubs

- Conference proceedings available:
  - all years: Publisher version, IACR members only
  - after 2 years: “IACR version”, public access
  - after 3 years: Publisher version, open access

Your IACR


We Need YOU
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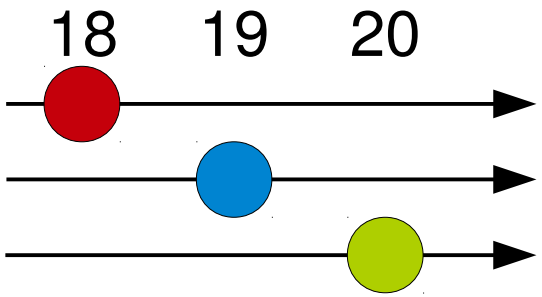
Current topics

Recent work in the Board

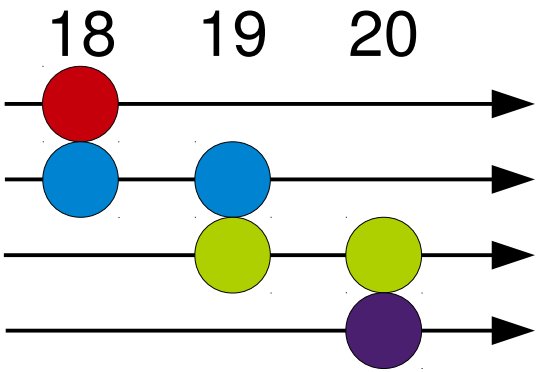
- Parallel co-chairs –> next
- Find details online
  - iacr.org/docs/minutes/
- Workshops are now an integral part of General Conferences (Asiacrypt, Crypto, Eurocrypt)
- Worried about growing difficulties with visas and problems with international exchange
- Nominations for 2019 election open

Parallel program co-chairs



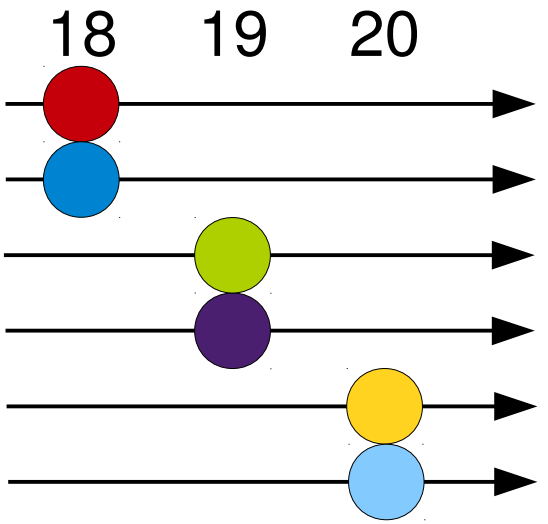
Single chair

until 2009



Rolling co-chair

TODAY



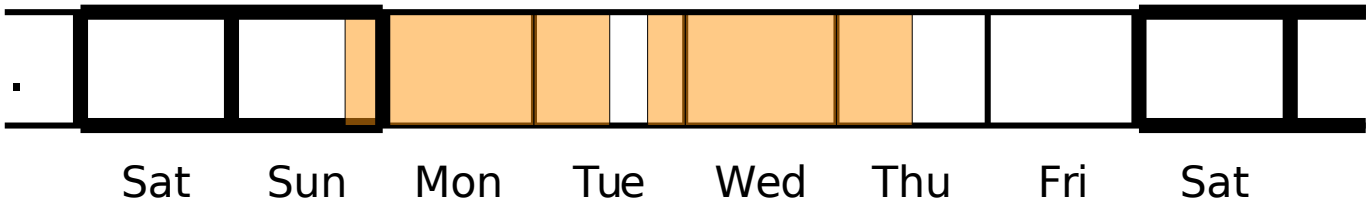
Parallel co-chair

Starting 2020-21

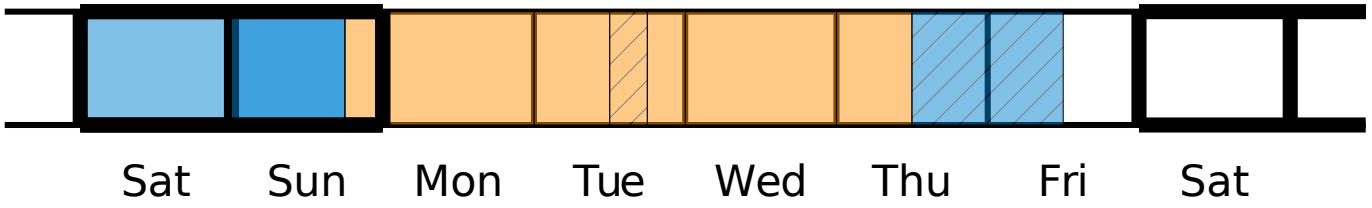
Adjusting to growth

Rethink the schedule of Asiacrypt, Eurocrpyt, Crypto?

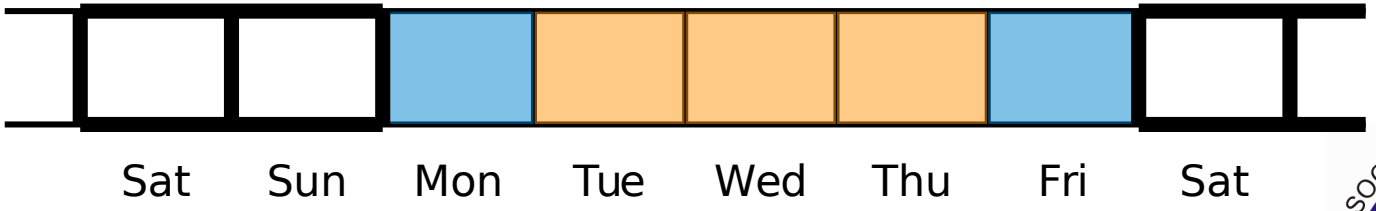
Since 1981 ...



Today



Alternative



–> EC 2021

Open discussion

Upcoming events

Future General Conferences

- Asiacrypt 2019, 8-12 Dec, Kobe (JP)
  - Mitsuru Matsui (GC)
  - Steven Galbraith & Shiho Moriai (PC)

Future General Conferences

- Eurocrypt 2020, 10-14 May, Zagreb (Croatia)
  - Lejla Batina & Stjepan Picek (GC)
  - Yuval Ishai & Anne Canteaut (PC)
- Crypto 2020, late Aug, UCSB, Santa Barbara
  - Leo Reyzin (GC)
  - Daniele Micciancio & Tom Ristenpart (PC)
- Asiacrypt 2020, 6-10 Dec, Daejeon (KR)
  - Kwangjo Kim (GC)
  - Shiho Moriai & Wang Huaxiong (PC)

Future General Conferences

- Eurocrypt 2021, Apr/May, Trondheim (Norway)
  - Colin Boyd (GC)
  - Anne Canteaut & NN (PC)
- Crypto 2021, late Aug, UCSB, Santa Barbara
  - NN
- Asiacrypt 2021, 5-9 Dec., Singapore
  - Guo Jian (GC)
  - Wang Huaxiong & NN (PC)

Future Area Conf. & Symp.

- CHES 2019, 24-28 Aug, Atlanta (US)
  - Vincent Mooney, Patrick Schaumont, Yunsi Fei (GC)
  - Jorge Guajardo & Pierre-Alain Fouque (TCHES EiC)

- TCC 2019, 1-5 Dec, Nuremberg (DE)
  - Dominique Schröder (GC)
  - Alon Rosen & Dennis Hofheinz (PC)

* * *

- RWC 2020, 8-10 Jan, New York (US)
  - Tom Ristenpart (local organizer)
  - Aggelos Kiayias (PC)

Future Area Conf. & Symp.

- FSE 2020, 22-26 Mar, Athens (GR)
  - Christina Boura (GC)
  - Gaëtan Leurent & Yu Sasaki (ToSC EiC)
- PKC 2020, 27-30 Apr, Edinburgh (UK)
  - Petros Wallden & Markulf Kohlweiss & Viassilis Zikas (GC)
  - Aggelos Kiayias (PC)
- TCC 2020, 16-19 Nov, Durham, NC (US)
  - Alessandra Scafuro (GC)
  - Rafael Pass & Krzysztof Pietrzak (PC)

See you at the Barbecue on Goleta Beach!