Internet Research Task Force Plenary Report
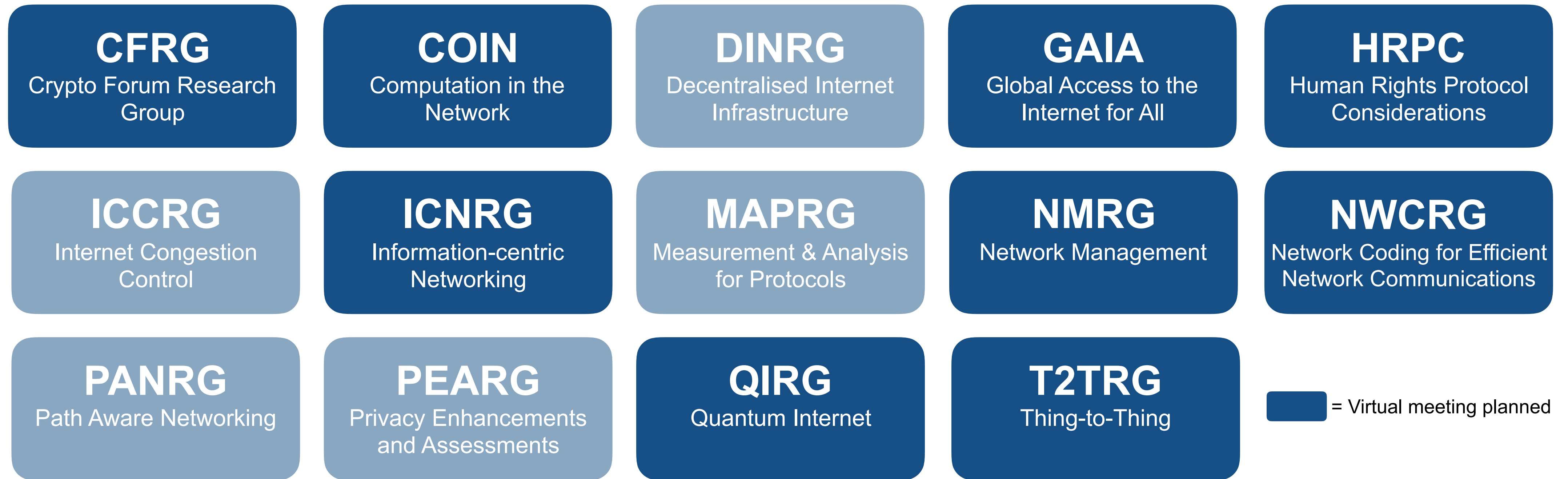
Colin Perkins

IRTF Chair

Virtual IETF 107 / 25 March 2020

Research Groups (1/2)

CFRG — Crypto Forum Research Group

COIN — Computation in the Network

DINRG — Decentralised Internet Infrastructure

GAIA — Global Access to the Internet for All

HRPC — Human Rights Protocol Considerations

ICCRG — Internet Congestion Control

ICNRG — Information-centric Networking

MAPRG — Measurement & Analysis for Protocols

NMRG — Network Management

NWCRG — Network Coding for Efficient Network Communications

PANRG — Path Aware Networking

PEARG — Privacy Enhancements and Assessments

QIRG — Quantum Internet

T2TRG — Thing-to-Thing

■ = Virtual meeting planned

The IRTF conducts research; it is not a standards development organisation
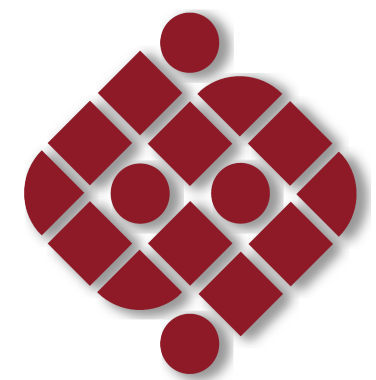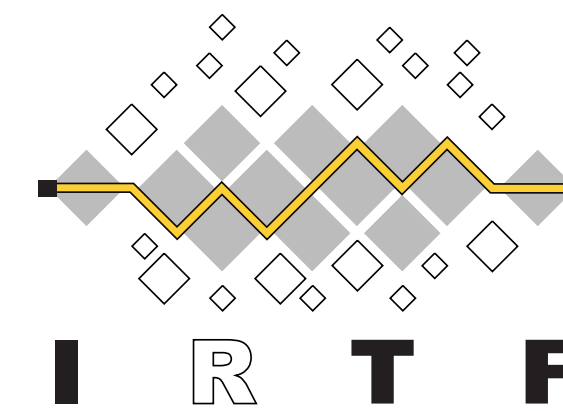
"An IRTF Primer for IETF Participants" – RFC 7418

Research Groups (2/2)

CFRG	COIN	DINRG	GAIA	HRPC
Crypto Forum Research Group	Computation in the Network	Decentralised Internet Infrastructure	Global Access to the Internet for All	Human Rights Protocol Considerations

ICCRG	ICNRG	MAPRG	NMRG	NWCRG
Internet Congestion Control	Information-centric Networking	Measurement & Analysis for Protocols	Network Management	Network Coding for Efficient Network Communications

PANRG	PEARG	QIRG	T2TRG
Path Aware Networking	Privacy Enhancements and Assessments	Quantum Internet	Thing-to-Thing

- Recently approved as full research groups – https://irtf.org/

Applied Networking Research Workshop

- Forum for researchers, vendors, network operators and Internet standards community to present and discuss emerging results in applied networking research

- ANRW 2020 will co-locate with IETF 108 in July 2020
  - Hopefully in Madrid – student travel grants available – otherwise online
  - TPC chairs: Mirja Kühlewind and Roland van Rijswijk-Deij
  - Paper submissions due 10 April 2020
  - **https://irtf.org/anrw/2020/**

Applied Networking Research Prize

- Awarded for recent results in applied networking research that are relevant for transitioning into shipping Internet products & related standards efforts

- Three ANRP winners for IETF 107:

  - **Ranysha Ware**, Matthew Mukerjee, Srinivasan Seshan, and Justine Sherry, "Beyond Jain's Fairness Index: Setting the Bar For The Deployment of Congestion Control Algorithms", ACM HotNets 2019
    - DOI:10.1145/3365609.3365855
    - https://www.cs.cmu.edu/~rware/assets/pdf/ware-hotnets19.pdf

  - **Georgia Fragkouli**, Katerina Argyraki, and Bryan Ford, "MorphIT: Morphing Packet Reports for Internet Transparency", Proc. Privacy Enhancing Technologies, 2019
    - DOI:10.2478/popets-2019-0021
    - https://content.sciendo.com/view/journals/popets/2019/2/article-p88.xml

  - Enric Pujol, **Ingmar Poese**, Johannes Zerwas, Georgios Smaragdakis, Anja Feldmann, "Steering Hyper-Giant's Traffic at Scale", Proc. ACM CoNEXT 2019
    - https://doi.org/10.1145/3359989.3365430
    - https://depositonce.tu-berlin.de/bitstream/11303/10442/4/pujol_etal_2019.pdf

- Award talks deferred until later – the papers are available to read now **https://irtf.org/anrp/**