

IRTF Open Meeting

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IRTF Chair

IETF 116 / 27 March 2023

Note Well – Intellectual Property

- **The IRTF follows the IETF Intellectual Property Rights (IPR) disclosure rules**
- By participating in the IRTF, you agree to follow IRTF processes and policies:
 - If you are aware that any IRTF contribution is covered by patents or patent applications that are owned or controlled by you or your sponsor, you must disclose that fact, or not participate in the discussion
 - The IRTF expects that you file such IPR disclosures in a timely manner – in a period measured in days or weeks, not months
 - The IRTF prefers that the most liberal licensing terms possible are made available for IRTF Stream documents – see [RFC 5743](#)
 - Definitive information is in [RFC 5378](#) (Copyright) and [RFC 8179](#) (Patents, Participation), substituting IRTF for IETF, and at <https://irtf.org/policies/ipr>

Note Well – Audio and Video Recordings

- The IRTF routinely makes recordings of online and in-person meetings, including audio, video and photographs, and publishes those recordings online
- If you participate in-person and choose not to wear a red “do-not-photograph” lanyard, then you consent to appear in such recordings, and if you speak at a microphone, appear on a panel, or carry out an official duty as a member of IRTF leadership then you consent to appearing in recordings of you at that time
- If you participate online, and turn on your camera and/or microphone, then you consent to appear in such recordings
- **This meeting is being recorded and live streamed**

Note Well – Privacy & Code of Conduct

- As a participant in, or attendee to, any IRTF activity you acknowledge that written, audio, video, and photographic records of meetings may be made public
- Personal information that you provide to IRTF will be handled in accordance with the Privacy Policy at <https://www.ietf.org/privacy-policy/>
- As a participant or attendee – whether in-person or remote, and on the mailing lists as well as during the meetings – you agree to work respectfully with other participants; please contact the ombudsteam (<https://www.ietf.org/contact/ombudsteam/>) if you have questions or concerns about this
- See [RFC 7154](#) (Code of Conduct) and [RFC 7776](#) (Anti-Harassment Procedures), which also apply to IRTF

In-Person and Remote Participation

- **In-person participants**

- You MUST sign into the session using MeetEcho (usually the “onsite tool” client) from the Datatracker agenda
- Use MeetEcho to join the mic queue
- Keep audio and video off if not using the onsite version



- **Remote participants**

- Make sure your audio and video are off unless you are chairing or presenting during a session
- Technical support: <http://www.ietf.org/how/meetings/issues/>

Reminder: Mask Policy

- As a COVID-safety measure, in-person participants in this meeting, and in other IETF-controlled rooms, are **required** to wear an FFP2/N95 mask, KN95/KF94/FFP3 mask, or locally certified equivalent.
- The only exception is for chairs or presenters who are actively speaking
- Participants making comments or asking questions from the floor microphones are expected to remain masked.

Goals of the IRTF

- The Internet Research Task Force (IRTF) focuses on longer term research issues related to the Internet while the parallel organisation, the IETF, focuses on shorter term issues of engineering and standards making
- **The IRTF conducts research; it is not a standards development organisation**
- While the IRTF can publish informational or experimental documents in the RFC series, the primary output of research groups is expected to be understanding and research results that may be disseminated by publication in scholarly journals and conferences

Research Groups (1/2)

CFRG Crypto Forum Research Group	COINRG Computation in the Network	DINRG Decentralised Internet Infrastructure	GAIA Global Access to the Internet for All	<div></div> Not meeting
HRPC Human Rights Protocol Considerations	ICCRG Internet Congestion Control	ICNRG Information-centric Networking	MAPRG Measurement and Analysis for Protocols	<div></div> Met earlier this week
NMRG Network Management	NWCRG Network Coding for Efficient Network Communications	PANRG Path Aware Networking	PEARG Privacy Enhancements and Assessments	<div></div> Still to meet
QIRG Quantum Internet	RASPRG Research & Analysis of Standards Processes	T2TRG Thing-to-Thing	UFMRG Usable Formal Methods	

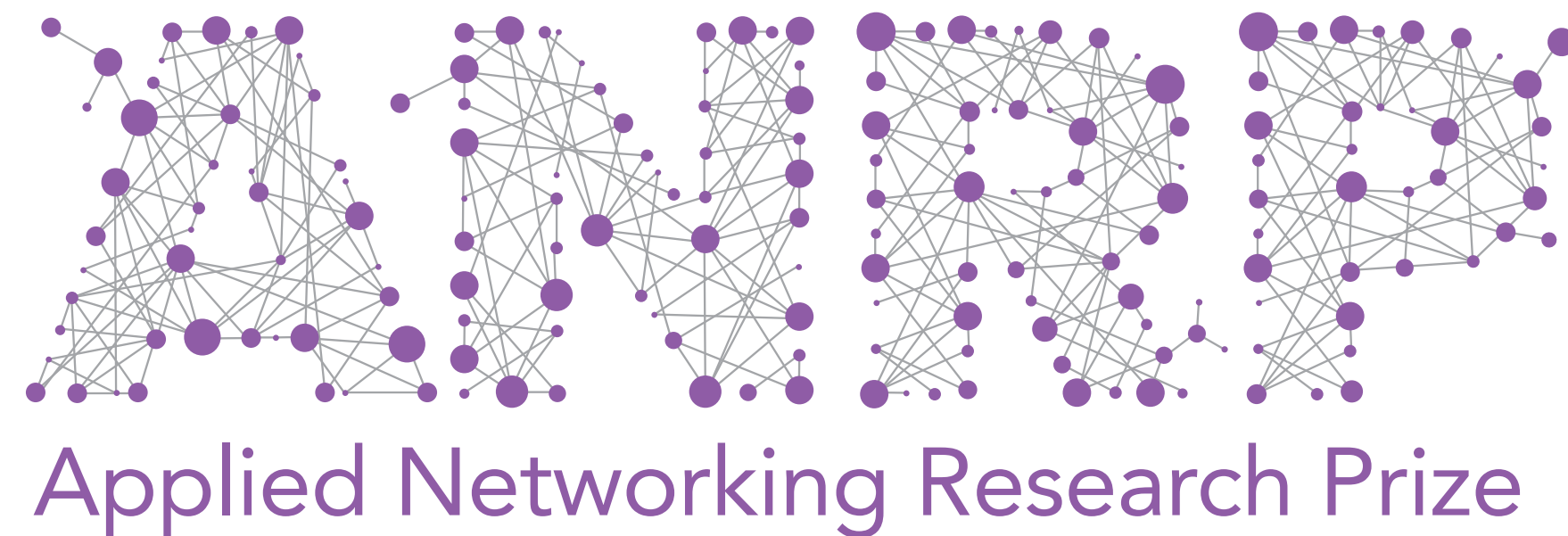
Research Groups (2/2)

- Two proposed research groups meeting for the first time this week
- **Usable formal methods** – G314-G315, 09:30 Wednesday
 - Chairs: Jonathan Hoyland, Stephen Farrell
 - Bring together the Internet protocol standards community and the academic research community study formal methods of protocol specification to share experience and ideas, and to understand whether/how formal methods can be employed to improve protocol standards
- **Researching and Analysis of Standard-setting Processes** – G316, 13:00 Thursday
 - Chairs: Ignacio Castro, Niels ten Oever
 - Understanding the standards-setting process, the composition of the standards setting community, its diversity, and the impact it has on standards-setting; understanding decision-making processes in Internet standards; understanding interactions between standards-setting communities

Recent IRTF Stream RFCs

RFC 9344	CCNinfo: Discovering Content and Network Information in Content-Centric Networks	February 2023	ICNRG
RFC 9340	Architectural Principles for a Quantum Internet	March 2023	QIRG

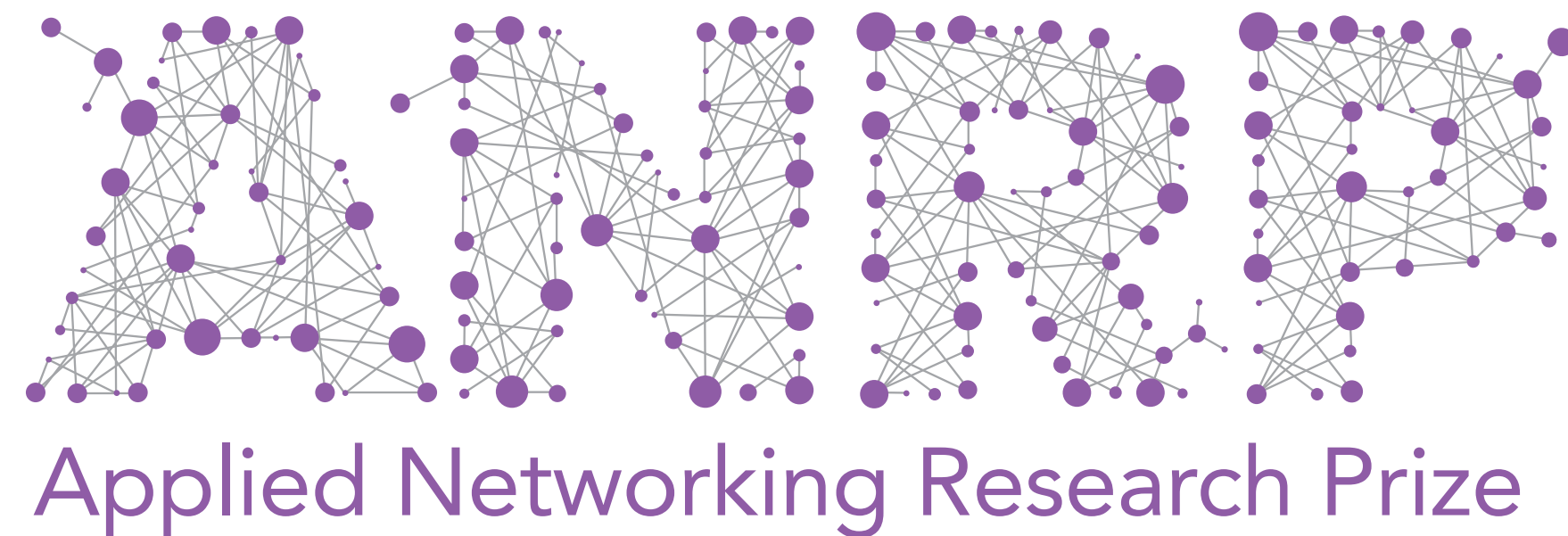
- IRTF research groups can publish Informational and Experimental RFCs, but **the main focus is on developing understanding – research papers are more common outputs than RFCs**
- “To me, the fundamental outcome of research is understanding, and the fundamental outcome of engineering is a product” – Fred Baker, quoted in RFC 7418



The Applied Networking Research Prize recognises:

- the best recent results in applied networking
- interesting new research ideas of potential relevance to the Internet standards community
- and upcoming people that are likely to have an impact on Internet standards and technologies

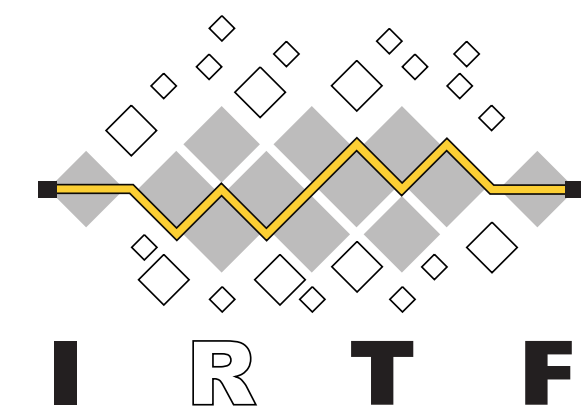
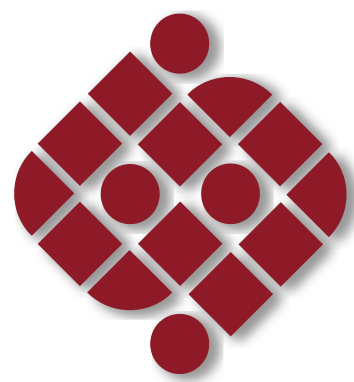
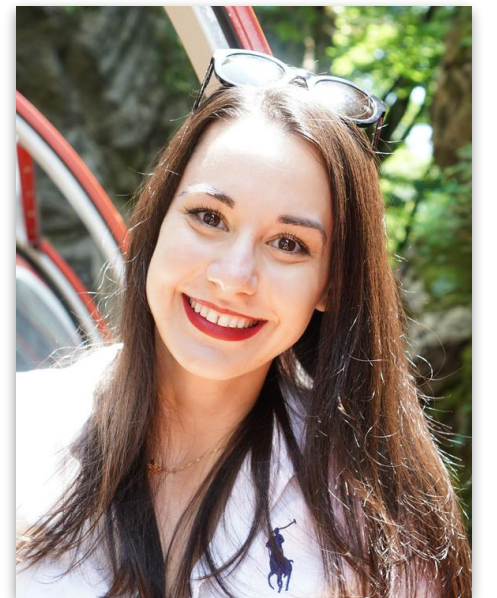
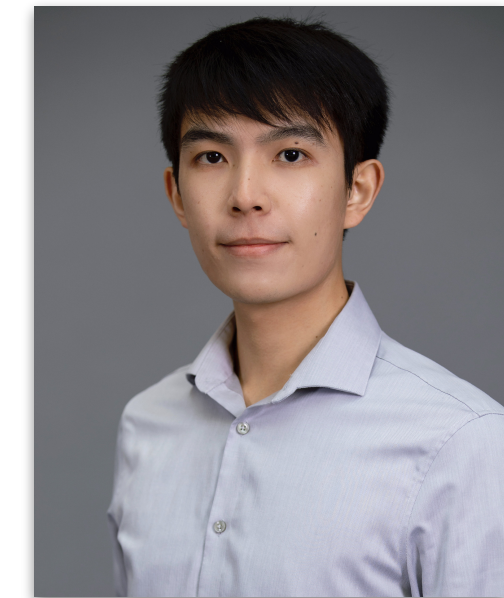




- Two ANRP award talks today:
 - **Boris Pismenny** for his work on novel NIC offloading architectures
 - **Arthur Selle Jacobs** for his work on evaluating machine learning for network security
- Papers and slides at <https://irtf.org/anrp/>
- Live stream at <https://www.ietf.org/live/>
 - Recordings on IETF Channel on YouTube

Applied Networking Research Workshop

- ACM/IRTF Applied Networking Research Workshop (ANRW) 2023 will co-locate with IETF 117 in July 2023
 - TPC chairs: Francis Yan (Microsoft) and Maria Apostolaki (Princeton)
 - Paper submissions due 12 May 2023
 - <https://irtf.org/anrw/2023/>
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- Forum for researchers, vendors, operators, and the Internet standards community to present and discuss emerging results in applied networking research

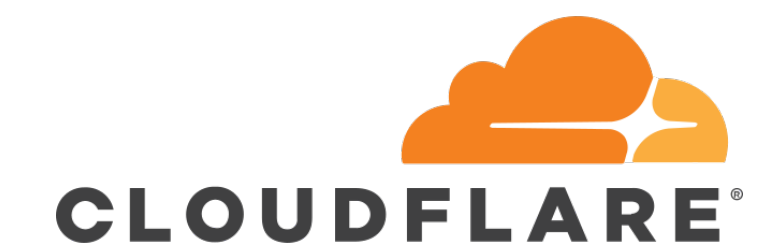


The IRTF is pleased to offer travel grants to support early career academics and PhD students from under-represented groups to attend the IRTF meetings co-located with the IETF

We also offer travel grants to attend the ACM/IRTF Applied Networking Research Workshop and make a small number of meeting fee waivers available

<https://irtf.org/travelgrants>

Thank you to our sponsors – please contact the IRTF Chair if you wish to help expand these programmes



Agenda

Time	Topic	Speaker
13:00	Introduction and Status Update	Colin Perkins
13:15	Introducing the Usable Formal Methods Proposed Research Group	Stephen Farrell / Jonathan Hoyland
13:30	Introducing the Research and Analysis of Standards-setting Processes Proposed Research Group	Ignacio Castro / Niels ten Oever
13:45	Autonomous NIC Offloads	Boris Pismenny
14:20	AI/ML for Network Security: The Emperor has no Clothes	Arthur Selle Jacobs
15:00	Close	