

IRTF Open Meeting

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IRTF Chair

IETF 117 / 27 July 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**

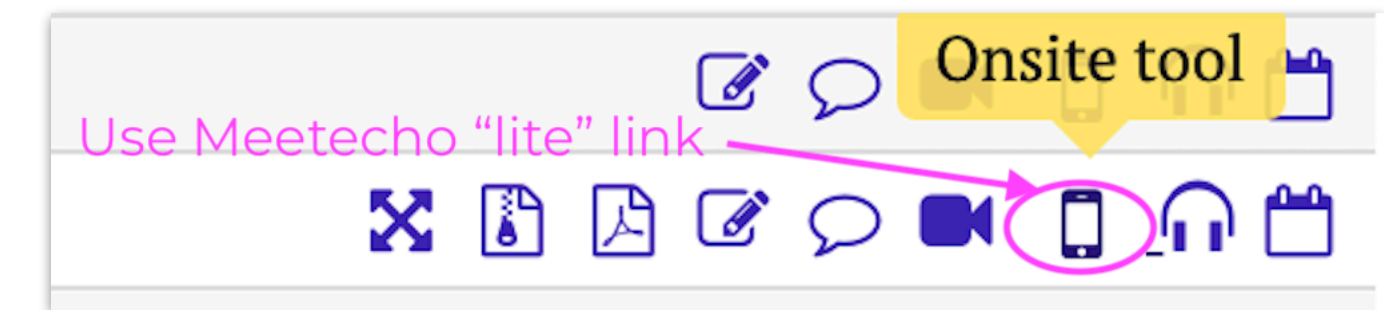
Note Well – Privacy & Code of Conduct

- 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 **or by scanning the QR code**
- 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/>

Goals of the IRTF

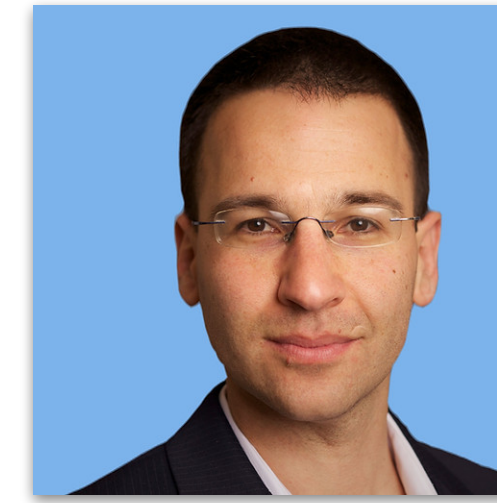
- The Internet Research Task Force (IRTF) focuses on longer term research issues related to the Internet while the parallel organisation, the IETF, focuses on shorter term issues of engineering and standards making
- **The IRTF conducts research; it is not a standards development organisation**
- While 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 (1/4)

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 (2/4)

- Jana Iyengar and Michael Schapira are stepping down as ICCRG chairs – thank you for your service!
- Simone Ferlin will continue as chair



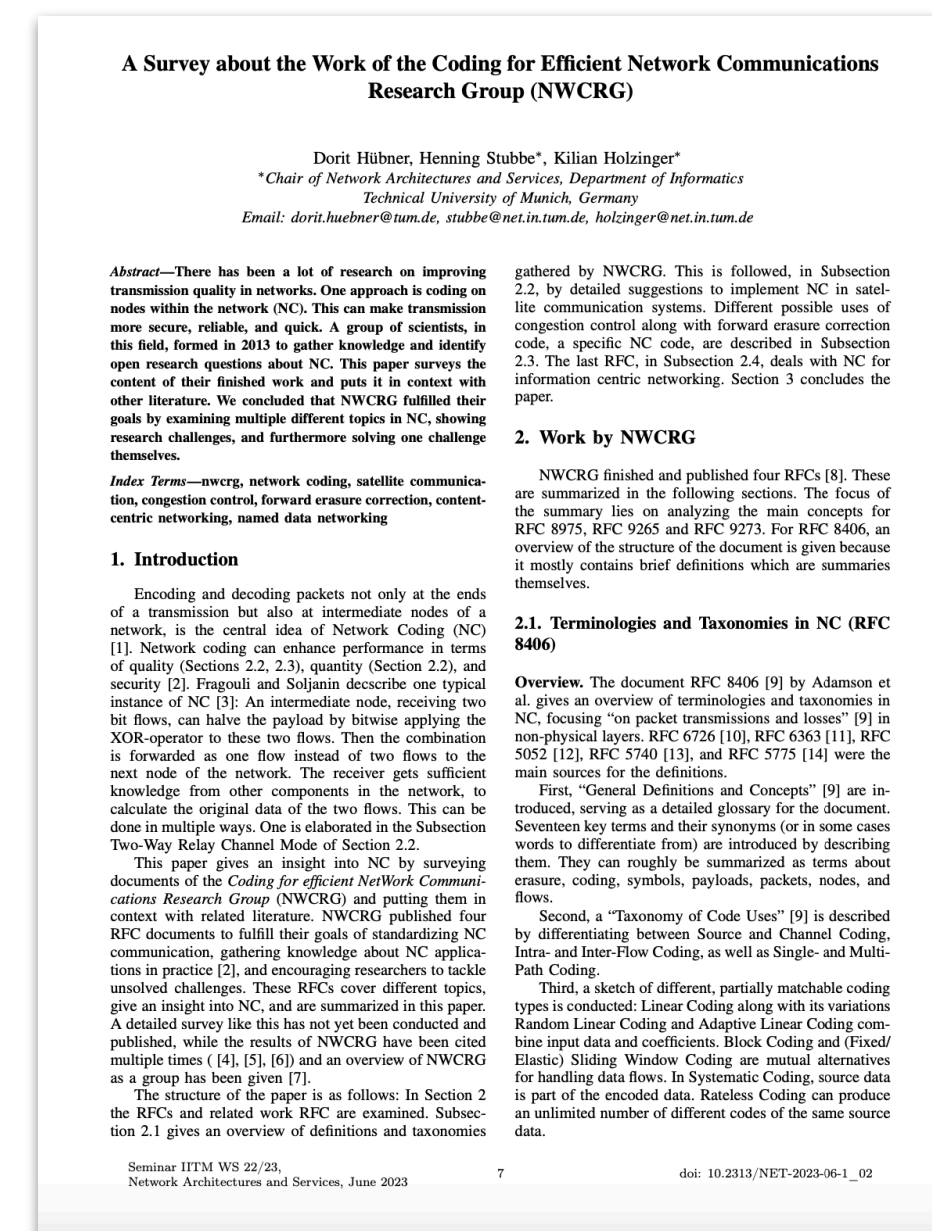
Research Groups (3/4)

- The Coding for efficient NetWork Communications Research Group (NWCRCG) has completed its work and will close
 - Thank you to the RG chairs, Vincent Roca and Marie-José Montpetit, and the current and past participants
- Two portrait photographs are displayed side-by-side. The left portrait shows a man with short grey hair, a beard, and glasses, wearing a dark blue button-down shirt. The right portrait shows a woman with long blonde hair and black-rimmed glasses, wearing a dark top. Both individuals are smiling slightly at the camera.



- “A Survey about the Work of the Coding for Efficient Network Communications Research Group (NWCRG)”

https://www.net.in.tum.de/fileadmin/TUM/NET/NET-2023-06-1/NET-2023-06-1_02.pdf

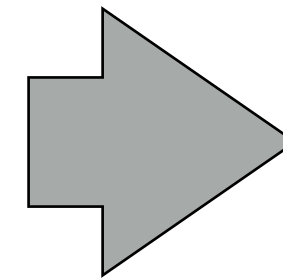


Research Groups (4/4)

- DINRG has rechartered “Decentralised Internet Infrastructure” → “Decentralisation of Internet Research Group”
- Reflects shift in emphasis in the group’s work over the past few years

**decentralised
technologies
and protocols**

economic drivers
and roadblocks



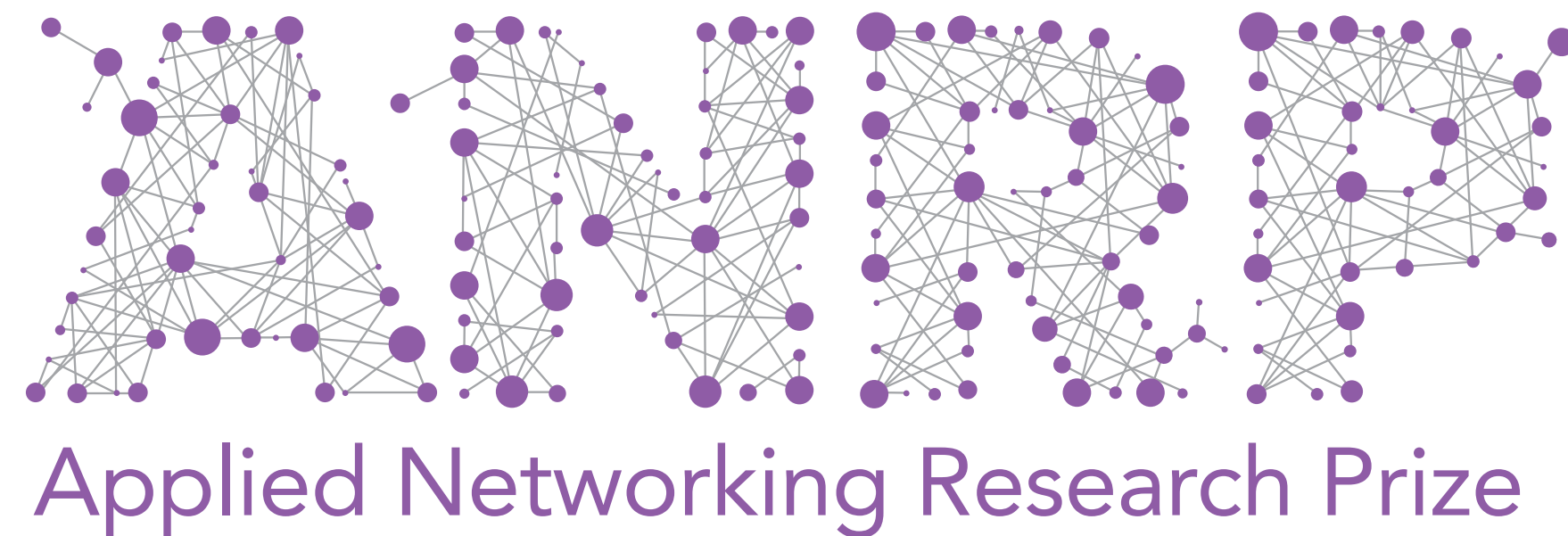
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Recent IRTF Stream RFCs

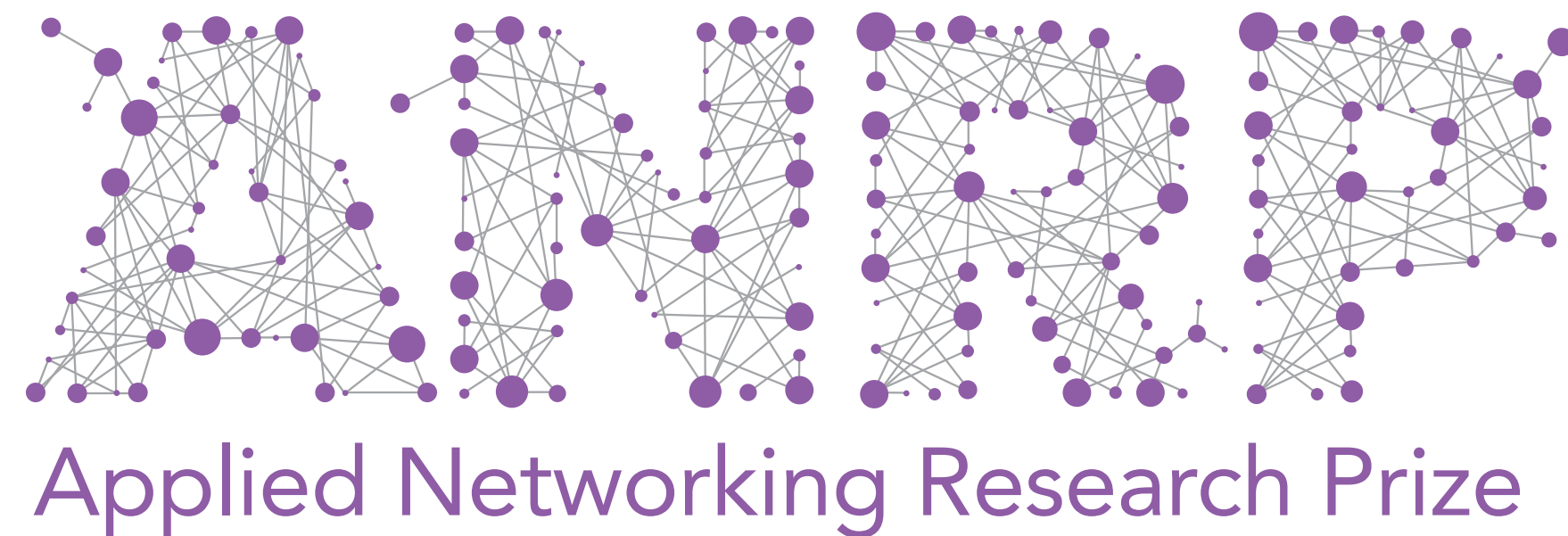
RFC 9407	Tetrys: An One-the-fly Network Coding Protocol	June 2023	NWCRG
RFC 9426	BATched Sparse (BATS) Coding Scheme for Multi-hop Data Transport	July 2023	NWCRG
RFC 9414	Unfortunate History of Transient Numeric Identifiers	July 2023	PEARG
RFC 9415	On the Generation of Transient Numeric Identifiers	July 2023	PEARG

- 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:

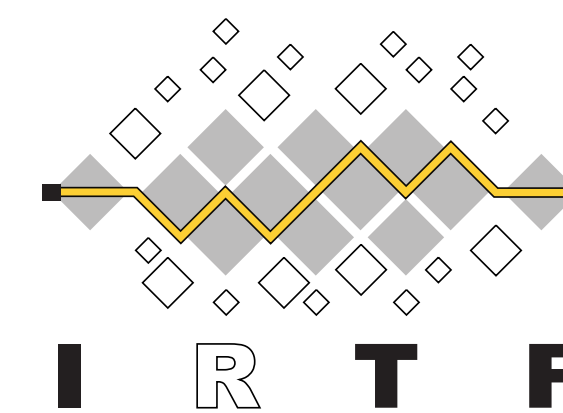
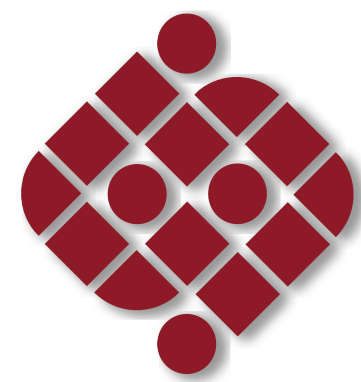
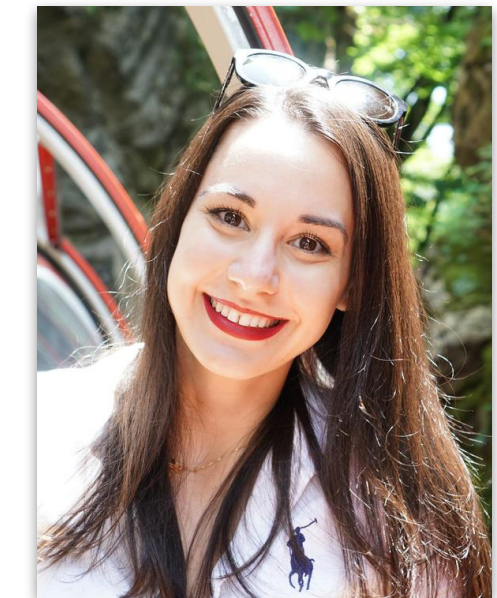
- the best recent results in applied networking
- interesting new research ideas of potential relevance to the Internet standards community
- and upcoming people that are likely to have an impact on Internet standards and technologies



- Two ANRP award talks today:
 - **Simon Scherrer** for his work on modelling the BBR congestion control algorithm
 - **Siva Kakarla** for his work on verifying the correctness of nameservers
- Papers and slides at <https://irtf.org/anrp/>
- Live stream at <https://www.ietf.org/live/>
 - Recordings on IETF Channel on YouTube

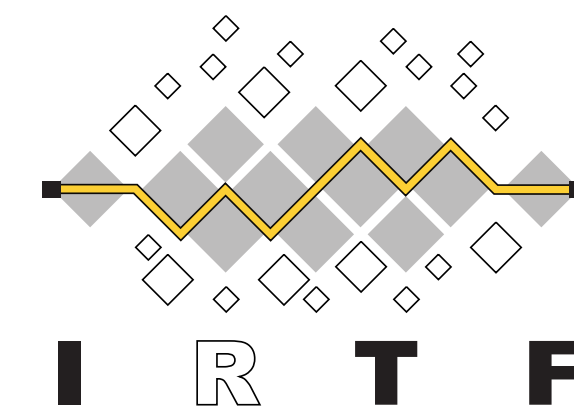
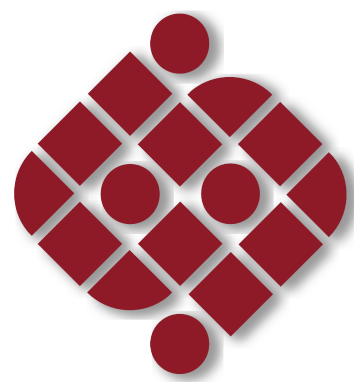
Applied Networking Research Workshop

- ACM/IRTF Applied Networking Research Workshop (ANRW) 2023 took place earlier this week
- Thank you to the organisers (Francis Yan and Maria Apostolaki), reviewers, authors, and speakers
- <https://irtf.org/anrw/2023/program.html>



Applied Networking Research Workshop

- ACM/IRTF Applied Networking Research Workshop (ANRW) **2024** will co-locate with IETF 120 in Vancouver in July 2024
- Organisers will be Simone Ferlin (Red Hat) and Ignacio Castro (Queen Mary University of London)
- Details to come at <https://irtf.org/anrw/2024/>



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	Model-based Insights on the Performance, Fairness, and Stability of BBR	Simon Scherrer
13:55	SCALE: Automatically Fixing Compliance Bugs in DNS Nameservers	Siva Kesava Reddy Kakarla
14:35	Close	

Postponed to IETF 118