

ANRW 2022

Applied Networking Research Workshop

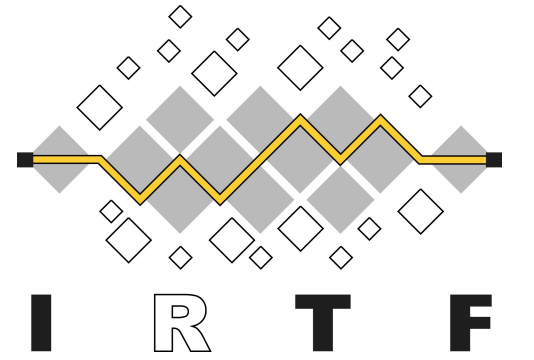
Welcome and Introduction
Chair: Tijay Chung and Marwan Fayed



Reminder: Mask Policy

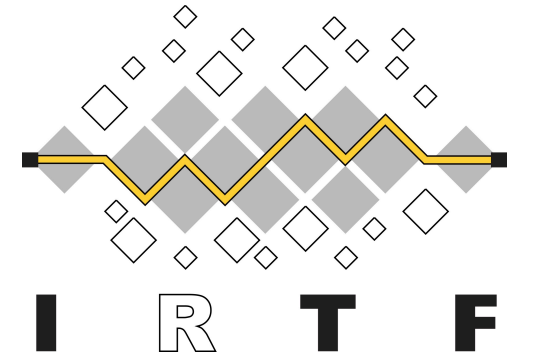
- As a COVID-safety measure, in-person participants in this meeting, and in other IETF-controlled rooms, are **required** to wear an FFP2/N95 mask, KN95/KF94/FFP3 mask, or locally certified equivalent.
- The only exception is for chairs or presenters who are actively speaking
- Participants making comments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

Note Well – Intellectual Property



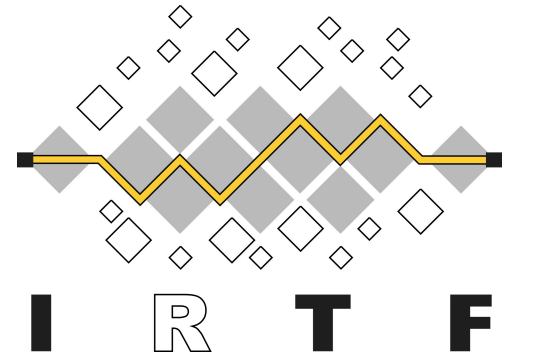
- **The IRTF follows the IETF Intellectual Property Rights (IPR) disclosure rules**
- By participating in the IRTF, you agree to follow IRTF processes and policies:
 - If you are aware that any IRTF contribution is covered by patents or patent applications that are owned or controlled by you or your 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



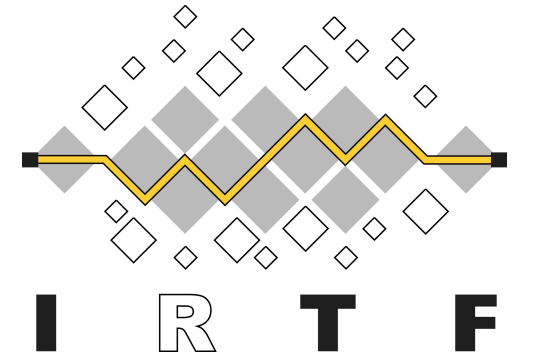
- The IRTF routinely makes recordings of online and in-person meetings, including audio, video and photographs, and publishes those recordings online
- If you participate in person and choose not to wear a red “do-not-photograph” lanyard, then you consent to appear in such recordings, and if you speak 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

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, 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

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, its primary goal is to promote development of research collaboration and teamwork in exploring research issues related to Internet protocols, applications, architecture, and technology
- See “An IRTF Primer for IETF Participants” – [RFC 7418](#)

Thanks to the Program Committee!

Ahmed	Saeed	(Georgia Tech)	Mattijs	Jonker	(University of Twente)
Amreesh	Phokeer	(Internet Society)	Melinda	Shore	(Fastly)
Anna	Brunstrom	(Karlstad University)	Moritz	Mueller	(SIDN Labs)
Aruna	Balasubramanian	(Stony Brook University)	Philipp	Richter	(Akamai)
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Dave	Oran	(Network Systems Research & Design)	Shumon	Huque	(Salesforce)
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Joel	Sommers	(Colgate University)	Stephen	Strowes	(Fastly)
Lars	Eggert	(NetApp)	Tony	Tauber	(Comcast)

Thanks to the Review Task Force!

Ethan Katz-Bassett (Columbia University)

Johanna Amann (ICSI)

Helped oversee the review process to ensure that the reviews are high quality, constructive and overall useful

Thanks to the sponsors!



COMCAST

Logistics and Links

- Program, Paper PDFs and Presentation Videos
 - <https://irtf.org/anrw/2022/program.html>

ANRW'22 Program Overview

15:00-17:00
(Special Session
on Protocol
Specification
Techniques)

Automated Attack Synthesis by Extracting Finite State Machines from Protocol Specification Documents

Max von Hippel (Northeastern University)

Tools for disambiguating RFCs

Jane Yen (USC)

CFRG Specifications in Theory and Practice

Chris Wood (Cloudflare)

ANRW'22 Program Overview

10:10-10:45	<p>Keynote</p> <p>Layer Four and Three Quarters: Fantastic Quirks and Where to Find Them Lucas Pardue</p>
10:45-12:00	<p>Is It Really Necessary to Go Beyond A Fairness Metric for Next-Generation Congestion Control? Safiqul Islam, Kristian Hiorth, Carsten Griwodz, and Michael Welzl</p> <p>Cross-layer Network Outage Classification Using Machine Learning Jan Marius Evang, Azza Hassan Mohamed Ahmed, Ahmed Elmukashfi, and Haakon Bryhni</p> <p>On the Suitability of BBR Congestion Control for QUIC over GEO SATCOM Networks Aitor Martin and Naeem Khademi</p> <p>Priority-aware Forward Error Correction for HTTP Nooshin Eghbal and Paul Lu</p>