
Projects (Past, Current, and Future)

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UNIVERSITY OF
CAMBRIDGE

CCS,
USENIX

ITP, EVote

SIGCOMM,
ICNP

Cryptography

Voting

Networking
Protocols



Schulze Voting as Evidence Carrying Computation

[Dirk Pattinson](#)  & [Mukesh Tiwari](#) 

Conference paper

948 Accesses | **6** [Citations](#)

Part of the [Lecture Notes in Computer Science](#) book series (LNTCS,volume 10499)

No More Excuses: Automated Synthesis of Practical and Verifiable Vote-Counting Programs for Complex Voting Schemes

[Lyria Bennett Moses](#), [Rajeev Goré](#), [Ron Levy](#), [Dirk Pattinson](#)  & [Mukesh Tiwari](#)

Conference paper | [First Online: 06 October 2017](#)

Modular Formalisation and Verification of STV Algorithms

[Milad K. Ghale](#) , [Rajeev Goré](#), [Dirk Pattinson](#) & [Mukesh Tiwari](#)

RESEARCH-ARTICLE

Verified Verifiers for Verifying Elections

Authors:  [Thomas Haines](#),  [Rajeev Goré](#),  [Mukesh Tiwari](#) [Authors Info & Claims](#)

Machine-checking Multi-Round Proofs of Shuffle: Terelius-Wikstrom and Bayer-Groth

Authors:

Thomas Haines, *Australian National University*; Rajeev Gore, *Polish Academy of Science*; Mukesh Tiwari, *University of Cambridge*

Submitted

Your Submissions

#784 [Assume but Verify: Deductive Verification of Leaked Information in Concurrent Applications](#)  **Submitted**

Welcome to the SIGCOMM 2023 submissions site.

Your Submissions

#124 [CAPP: Combinators for Algebraic Path Problems](#)  **Submitted**

The [deadline](#) for registering submissions has passed.

Future Project

- ❖ Session Types for Voting (distributed voting centres, each collecting votes and sending it to a central server)
- ❖ Session Types for Information Flow Security (client/server not accidentally leaking a secret to other party, useful in differentially private Federated Learning)
- ❖ Session Types for computational model of cryptography (bounds of communication complexity)
- ❖ Session Types for Multi-Party Computation (combining votes without leaking individual ballots)
- ❖ Session Types for Smart Contracts

Questions?