

Privacy-preserving Network Congestion Control (Award #1739966)

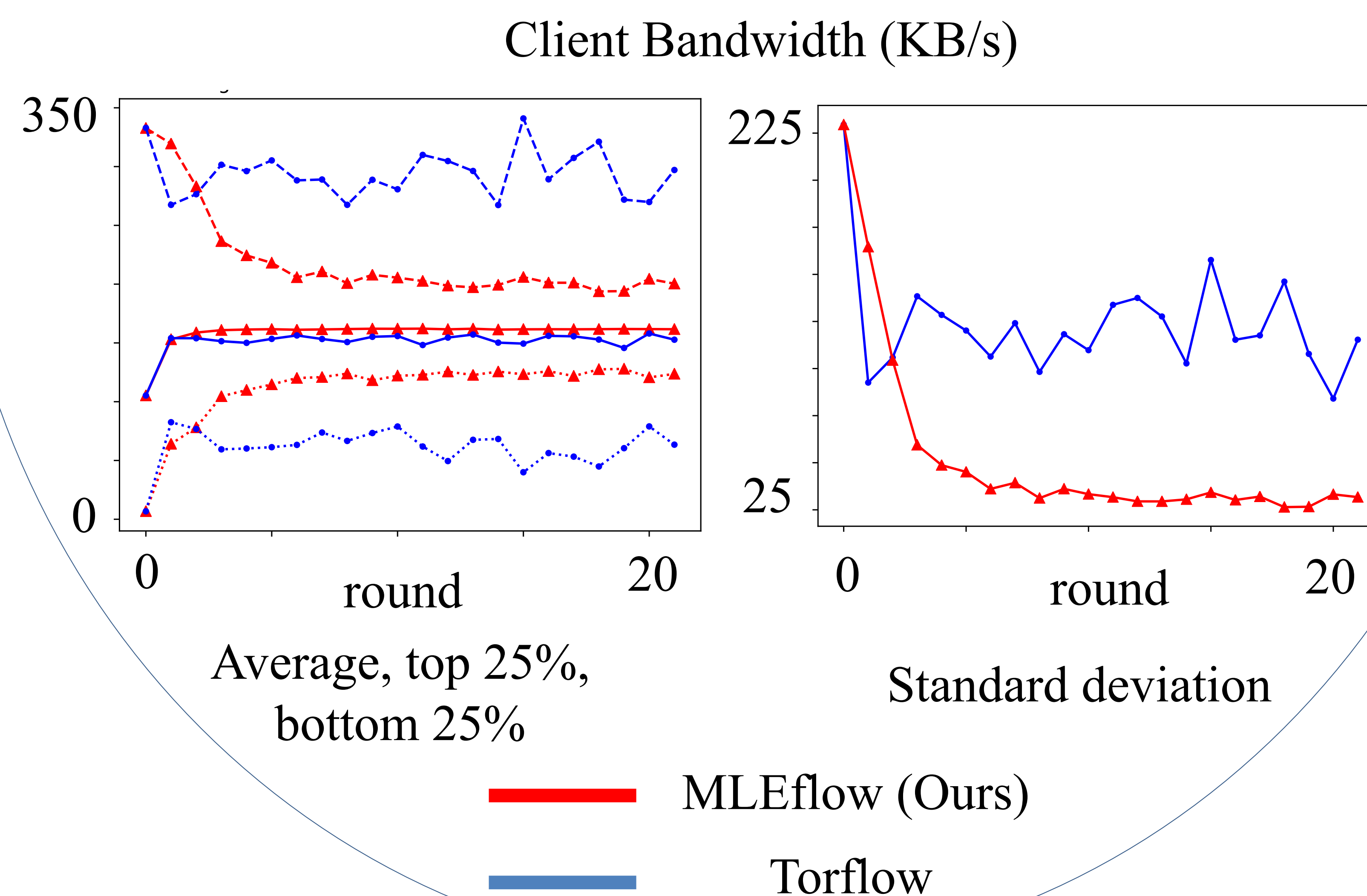
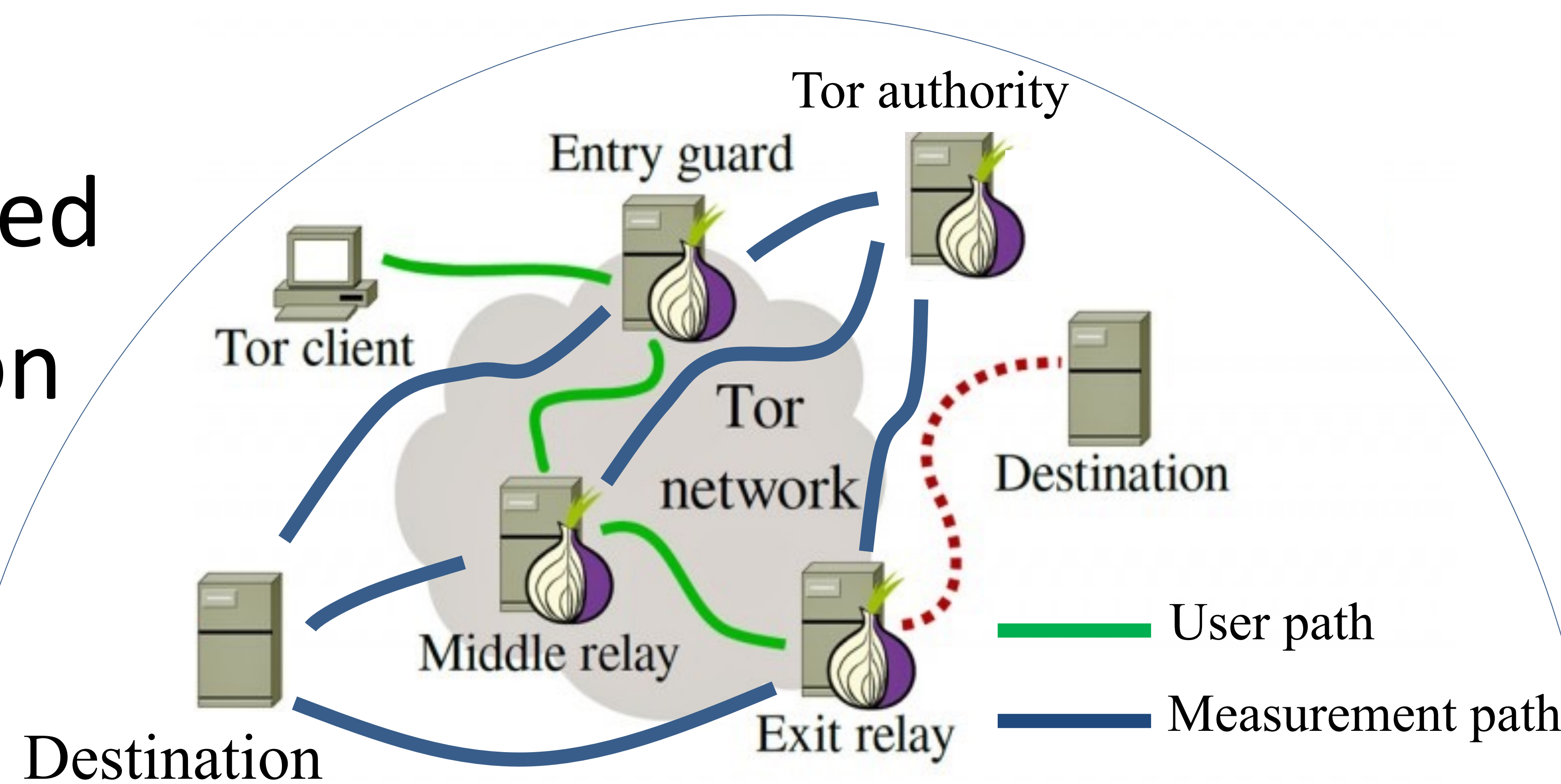
Hussein Darir, Hussein Sibai, Chester Cheng, Sayan Mitra, Geir Dullerud, and Nikita Borisov

Challenge:

- Tor is slow, yet under utilized
- Unfair bandwidth allocation
- Noisy measurements

Our Solution: MLEFlow

- New capacity estimation algorithm
- Uses measurement history
- Maximum likelihood
- Convergence guarantees



Scientific Impact:

- Estimation in other networks
- Simple statistical techniques can result in significant practical impact

Broader Impact:

- Efficient privacy-preserving internet access
- Journalists and whistleblowers can use Tor more efficiently