

---

**KRZYSZTOF NOWICKI**, University of Wrocław

*MST in  $O(1)$  rounds of Congested Clique*

Congested-Clique is a synchronous multi-party communication model, in which there are  $n$  players that perform computation in synchronous rounds, each consisting of the phase of local computation and the phase of communication. While communicating, each pair of players can exchange  $O(\log n)$ -bit messages. Each player corresponds to a single vertex of the input graph and initially knows all edges incident to this vertex.

This talk is about two techniques that are essential for the  $\mathcal{O}(1)$  round algorithm for the Minimum Spanning Forest problem. The first technique gives an  $\mathcal{O}(\log^* n)$  round algorithm [Ghaffari,Parter;PODC'16], the second [Jurdziński,Nowicki;SODA'18] improves its complexity to  $\mathcal{O}(1)$  rounds.