ConsensusDay 23

**3rd Workshop on Recent Developments in Consensus
co-located with Belgrade Blockchain Week**

Date: 5-6 June 2023 (TBC)

Location: Online + Belgrade, Serbia

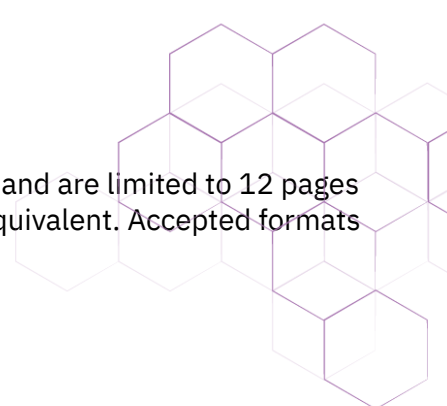**http://research.protocol.ai/sites/consensusday23**

Protocol Labs
Research

Consensus — loosely defined as global agreement on the state of a decentralised network across its mutually untrusting participants — has been at the heart of decentralised systems ever since the inception of Nakamoto's Proof-of-Work (PoW) consensus. At the same time, its scalability remains the Achilles' heel of decentralised systems.

A number of ongoing R&D efforts aim at scaling blockchain networks up to 10s to 100s of thousands of transactions per second. Yet such performance targets can be seen as modest when the goal is to bring traditional web workloads to the decentralised web (Web3), requiring the handling of billions of transactions per second, large volumes of data, complex workloads, and hard latency requirements.

The goal of this event, ConsensusDay 23, is to foster scientific exchange across a wider community in consensus research and adjacent fields, by disseminating and providing a forum for discussion of upcoming impactful research with a practical twist. To maintain the liveliness, level and depth of discussions we had in our previous editions, ConsensusDay22 and ConsensusDay21, the goal of the workshop is to gather some of the best new research in these fields that has seen the light of the day in the last year.

Topics of interest span the entirety of decentralised system scaling infrastructure, including but not limited to:
- Consensus protocols
- Consistency semantics alternative to total order
- Decentralized cloud computing, search, social networks, storage
- Interoperability across blockchain systems
- L2+ scaling approaches (e.g., channels, sharding, sidechains, rollups)
- Model checking, verification and testing of decentralised systems
- Novel approaches to Sybil attack protection
- Parallel execution
- Performance evaluation of decentralized systems
- Reconfiguration of consensus protocols
- Security/scalability tradeoffs
- Scalable VDFs, VRFs, ZK and other cryptographic primitives

Contributions should be submitted via https://consensusday23.hotcrp.com/ and are limited to 12 pages (excluding appendices and bibliography) in ACM double-column format or equivalent. Accepted formats include:

- Full papers
- Work-in progress papers
- Position papers
- Demos

Accepted contributions will be given a presentation slot at the workshop but no proceedings will be published. We welcome original submissions, as well as work that has been submitted, accepted, or published in conferences, or on the web (e.g. archives such as arXiv and ePrint), in the last 12 months, i.e. since Feb 1, 2022 — with the exception of papers already presented at ConsensusDay22.

Please review the programmes for ConsensusDay 21 and ConsensusDay 22 for a (non-comprehensive) overview of the scope of the workshop.

Important Dates
- Submission Deadline: 15 Mar 2023
- Acceptance Notification: 15 April 2023

Organising Committee

- Jorge Soares, Protocol Labs
- Marko Vukolic, Protocol Labs

Technical Programme Committee

- Alysson Bessani, University of Lisbon
- Rati Gelashvili, Aptos
- Arthur Gervais, Imperial College London
- Guy Goren, Protocol Labs
- Duc V. Le, VISA Research
- Giuliano Losa, Stellar Development Foundation
- Sergio Mena, Informal Systems
- Henrique Moniz, Protocol Labs
- Joachim Neu, Stanford University
- Alejandro Ranchal-Pedrosa, Protocol Labs
- Rodrigo Rodrigues, University of Lisbon
- Alberto Sonnino, Mysten Labs
- Alexander Spiegelman, Aptos
- Chrysoula Stathakopoulou, Chainlink
- Qiang Tang, University of Sydney
- Jiangshan Yu, Monash University