

# 3rd International Conference on Blockchain Economics, Security and Protocols

Tokenomics 2021, November 18–19, 2021, New York University,  
USA (Virtual Conference)

Edited by

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## ■ Preface

The papers in this volume were presented at Tokenomics 2021, the 3rd International Conference on Blockchain Economics, Security and Protocols, hosted virtually at New York University from November 18th to 19th, 2021.

Tokenomics is an international forum for theory, design, analysis, implementation and applications of blockchains and smart contracts. The goal of the conference is to bring together economists, computer science researchers and practitioners working on blockchains in a unique program featuring outstanding invited talks and academic presentations.

The Program Committee of Tokenomics 2021 was divided in two sub-committees. One sub-committee of 26 international computer science experts co-chaired by Vincent Gramoli and Rafael Pass and another sub-committee of 36 international economics experts chaired by Hanna Halaburda. The Program Committee received 41 submissions, each submission was classified by their authors depending on its topic:

- 22 submissions were classified as mostly economics papers;
- 11 submissions were classified as overlapping both fields of computer science and economics;
- 8 submissions were classified as mostly computer science papers.

Each paper was assigned 3 reviewers among the program committee members based on the expertise and expressed interest of the members.

Out of all submissions, 5 papers were accepted to be presented and published in the proceedings of the conference and 13 papers were accepted for presentation only. Each submitted paper went through a reviewing process before being discussed online by the program committee until convergence towards a decision upon whether to include it in the program.

Lin William Cong (Cornell University, USA), Xi Li (Newcastle University, UK), Ke Tang (Tsinghua University, China) and Yang Yang (Tsinghua University, China) received the Best Paper Award of Tokenomics 2021 for their paper *Crypto Wash Trading*. The paper presents tests based on statistical and behavioral trading patterns to detect fake transactions on 29 cryptocurrency exchanges. These tests led to identify that an average of 70% of the trading volume on these exchange platforms is dedicated to wash trading, i.e., simultaneously selling and buying the same financial assets to create artificial activity in the marketplace. This work finds applications in forensics finance and suggests the potential of regulation in the area of cryptocurrency. The award was offered by the Blockchain & Platform Chair of the École Polytechnique.

Last but not least, the program also included three great keynote talks: Joe Halpern (Cornell University, USA) presented *Distributed Computing Meets Game Theory: Fault Tolerance and Implementation with Cheap Talk*, David Parkes (MIT, USA) presented *Mechanism Design for the Blockchain Transaction-Fee Market* and Catherine Tucker (Harvard University, USA) presented *Privacy and Blockchain*.

We are grateful to the sponsors of Tokenomics 2021: Blockchain & Platform Chair of the École Polytechnique and New York University, NY, USA.

*Vincent Gramoli, Hanna Halaburda, and Rafael Pass*

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Editors: Vincent Gramoli, Hanna Halaburda, and Rafael Pass



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