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# CRYPTO AND BLOCKCHAIN ECONOMICS RESEARCH FORUM

#### **CBER Crafting the Cryptoeconomy Conference**

Hosted by Columbia University's Center for Digital Finance and Technologies Sponsored by Avalanche Foundation and Uniswap Foundation

> Columbia Engineering Innovation Hub Tang Family Hall, New York, NY 10027 2276 12th Avenue, Floor 2 October 25-26, 2024

In collaboration with Columbia University's Center for Digital Finance and Technologies, Boston University's Digital Business Institute at the Questrom School of Business, Ecole Polytechnique, FinTech at Cornell - an Initiative of the SC Johnson College of Business, the FinTech Research Center at the University of Florida, the NYU Stern School of Business, and the University of Toronto Rotman School of Management's FinHub

#### REGISTER FOR CONFERENCE

# October 25th: Workshop Day

Welcome and Opening Remarks	8:00 am – 8:10 am
Agostino Capponi, Columbia University	

CBER CtCe Research Funding Announcement	8:10 am – 8:15 am
Andreas Park, University of Toronto and Fahad Saleh, University of Florida	

# AMMs and Uniswap v4 Session Chair: Xin Wan, Uniswap Labs • Economics of Automated Market Makers Andreas Park, University of Toronto • Overview of Uniswap v4 Fahad Saleh, University of Florida

**Coffee Break** 9:45 am – 10:00 am



#### **Maximal Extractable Value**

10:00 am - 11:30 am

Session Chair: Jongsub Lee, Seoul National University

- Overview of Maximal Extractable Value Ciamac Moallemi, Columbia University
- Mitigation Techniques for Maximal Extractable Value Julian Ma, Ethereum Foundation

Lunch

11:30 am – 1:00 pm

Eigen Layer Presentation

**Order Flow Auctions** 

1:00 pm - 2:30 pm

Session Chair: Mahendrarajah Nimalendran, University of Florida

- Market Microstrucure Concepts for Cryptoeconomics Joel Hasbrouck, NYU Stern
- The Ecosystem of OFAs in the Cryptoeconomy Brad Bachu, Uniswap Labs

Coffee Break

2:30 pm - 2:45 pm

**Real-World Hook Designs** 

2:45 pm – 3:45 pm

Moderator: Kenneth Ng, Uniswap Foundation

•MEV-Aware Hook Design Karthik Srinivasan, Sorella Labs

•*TBD* 

**TBD** 

•*TBD* 

TBD

Coffee Break

3:45 pm – 4:00 pm

**Keynote Address** 

4:00 pm - 5:00 pm

Moderator: Kose John, NYU Stern

Do Cryptocurrencies Matter From An Economic Perspective?

Bruno Biais

Professor of Finance, HEC Paris



#### **Concluding Remarks**

5:00 pm - 5:15 pm

George Deodatis, Vice Dean for Research at Columbia Engineering

#### October 26th: Research Day

Panel: "Evolution of Decentralized Exchange: Risks, Benefits, and Oversight"

8:30 am - 9:15 am

Moderator: Troy Paredes, Former SEC Commissioner and Founder, Paredes Strategies LLC

Session Panelists:

- Campbell Harvey, Duke University (Author)
- Brian Nistler, Uniswap Foundation (Discussant)
- TBD (Discussant)

**Coffee Break** 9:15 am – 9:30 am

#### **Privacy in the Cryptoeconomy**

9:30 am - 10:30 am

Session Chair: Yuliya Guseva, Rutgers University

Regulating Decentralized Systems: Evidence from Sanctions on Tornado Cash

- · Anders Brownworth, Radius Inc.
- Jon Durfee, Federal Reserve Bank of New York
- Michael Junho Lee, Federal Reserve Bank of New York (Presenter)
- · Antoine Martin, Swiss National Bank

Discussant: Alfred Lehar, University of Calgary

Blockchain Privacy and Regulatory Compliance: Towards a Practical Equilibrium

- Vitalik Buterin, Ethereum Foundation
- Jacob Illum, Chainalysis
- · Matthias Nadler, University of Basel
- Fabian Schär, University of Basel (Presenter)
- · Ameen Soleimani, Privacy Pools

Discussant: Jiasun Li, George Mason University

**Coffee Break** 10:30 am – 10:45 am

Special Session

10:45 am – 11:30 am

Moderator: Jay Sethuraman, Columbia University

Zero Knowledge: Introduction and DeFi Implications
Benedikt Bünz

New York University



#### **Lunch with 2nd CBER-Circle Insight Award Presentation**

Moderator: Gordon Liao, Circle

11:30 am - 1:00 pm

#### **Decentralized Exchanges**

1:00 pm - 2:00 pm

Session Chair: Evgeny Lyandres, Tel Aviv University

Automated Market Makers and the Value of Adaptive Fees

- David Cao, University of Pennsylvania
- Brett Hemenway Falk, University of Pennsylvania (Presenter)
- Gerry Tsoukalas, Boston University

Discussant: Alex Nezlobin, London School of Economics

An Analysis of Intent-Based Markets

- Tarun Chitra, Gauntlet
- Kshitij Kulkarni, UC Berkeley
- Mallesh Pai, Rice University (Presenter)
- Theo Diamandis, MIT

Discussant: Andrea Canidio, CoW Protocol

 $\textbf{Coffee Break} \hspace{35mm} 2:00 \hspace{1mm} pm - 2:15 \hspace{1mm} pm$ 

#### Panel: "Economic Limits of Permissionless Consensus"

2:15 pm - 3:00 pm

Moderator: Hanna Halaburda, NYU Stern

**Session Panelists:** 

- Tim Roughgarden, Columbia University (Author)
- Katya Malinova, McMaster University (Discussant)
- TBD (Discussant)

**Research Briefs** 3:00 pm - 4:00 pm

Session Chair: Bita Abolfathi, Uniswap Foundation

Who Wins Ethereum Block Building Auctions and Why?

• Danning Sui, Flashbots

Decentralization of Ethereum's Builder Market

• Fan Zhang, Yale University

CLVR Ordering of Transactions on AMMs

• Robert McLaughlin, University of California at Santa Barbara

Price Formation in Memory Pools

• Fayçal Drissi, University of Oxford

A User-Owned and Compliant Privacy Protocol for Decentralized Finance

• Amit Chaudhary, University of Warwick

BoLD: Fast and Cheap Dispute Resolution

• Ben Berger, Offchain Labs



Coffee Break
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#### **Special Session** 4:15 pm - 5:00 pm

Moderator: Aviv Yaish, Yale University

# Overview of Rollups Ed Felten Offchain Labs and Princeton University

# CBER Forum Announcements 5:00 pm – 5:05 pm Andreas Park, University of Toronto and Fahad Saleh, University of Florida

#### Concluding Remarks 5:05 pm – 5:15 pm Agostino Capponi, Columbia University



#### **Organizers**

Agostino Capponi Nir Chemaya
Columbia University UC, Santa Barbara

Kose John Barnabé Monnot Andreas Park
NYU Stern Ethereum Foundation University of Toronto

Fahad Saleh Lee Schneider Aviv Yaish University of Florida Ava Labs Yale University

# **Advisory Committee**

Bita Abolfathi Uniswap Foundation Brad Bachu Uniswap Labs Lin William Cong Cornell University

Hanna Halaburda NYU Stern

Gordon Liao Circle Ciamac Moallemi Columbia University Andy Naranjo
University of Florida

Mike Neuder Ethereum Foundation

Kenneth Ng Uniswap Foundation

Brett Palatiello Eigen Labs Julien Prat Ecole Polytechnique Gerry Tsoukalas

Boston University

Xin Wan Uniswap Labs David Yermack NYU Stern

# **CBER-Circle Insight Selection Committee**

Agostino Capponi Columbia University Andreas Park University of Toronto Hanna Halaburda NYU Stern Gordon Liao Circle Evgeny Lyandres
Tel Aviv University