AI-Driven Market Microstructure in Centralized and Decentralized Finance

Artificial Intelligence, Trading, Liquidity, and Price Formation Across Traditional and On-Chain Markets

An ACM ICAIF 2026 Workshop • Milan, Italy • November 14–15, 2026

Website: icaif-AI-driven.github.io **Submission:** CMT

Call for Papers

The workshop *AI-Driven Market Microstructure in Centralized and Decentralized Finance* invites contributions at the intersection of artificial intelligence and financial market microstructure. We welcome theoretical, empirical, and computational research on how machine learning, reinforcement learning, agent-based modeling, and other data-driven methods can advance our understanding of trading, liquidity provision, price formation, market impact, and market design.

The workshop brings together researchers and practitioners working across traditional and decentralized financial markets, with particular attention to AI-driven trading agents, decentralized exchanges, automated market makers, and on-chain liquidity. All submissions should address both *AI* and *finance*, in line with the scope of ICAIF '26.

Topics of Interest

Topics include, but are not limited to:

- Reinforcement learning for optimal execution, market making, and trading under partial information;
- Agentic AI, agent-based, and multi-agent models of price formation, market impact, and strategic interaction;
- Machine learning for liquidity dynamics, order-book modeling, and price discovery;
- AI-driven trading agents and their effects on liquidity, volatility, and market stability;
- Microstructure of decentralized exchanges and automated market makers;
- On-chain liquidity provision, arbitrage, and price formation;
- Simulation, digital twins, and generative models of financial markets;
- Explainability, robustness, and stability of AI models in finance;
- Data-driven approaches to market design, fairness, and regulation;
- Comparative studies of centralized and decentralized markets.

Submission and Review

We welcome original contributions from both academia and industry, including research papers, short papers, position papers, and extended abstracts.

Submissions must be uploaded as **PDF files** and prepared for **double-blind review**. Authors should remove names, affiliations, acknowledgments, and any other information that could directly reveal their identity.

Submissions may be longer than eight pages, but **only the first 8 pages, including references, will be considered during the review process**. Any material beyond page 8 will not be considered by the reviewers.

Submissions will be evaluated by the Scientific Committee on the basis of scientific quality, originality, relevance to the workshop, and potential to stimulate discussion.

Important Dates

All deadlines are 23:59 Anywhere on Earth (AoE).

- **Submission deadline:** October 1, 2026
- **Author notification:** October 15, 2026
- **Workshop:** November 14–15, 2026

Program and Attendance

The program will include **invited talks, accepted paper presentations, posters, or lightning talks**, with a format designed to encourage discussion and interaction between researchers and practitioners.

Invited speakers and the detailed workshop program will be announced on the **workshop website**.

Presentations of accepted contributions must be delivered **in person**. At least one author of each accepted contribution must attend the workshop and **register for ICAIF 2026** according to the conference registration requirements.

Registration and attendance information is available on the **official ICAIF 2026 workshop page**.

Workshop Focus

The workshop places *market microstructure* at the center of the AI-in-finance discussion, focusing on liquidity provision, price formation, information flow, and market design across both traditional exchanges and decentralized on-chain venues.

Its distinctive perspective is to examine centralized and decentralized financial systems jointly through learning-based, agent-based, and data-driven approaches.

Organizing Committee

- **Manuel Naviglio** — Scuola Normale Superiore
- **Ioanna-Yvonni Tsaknaki** — Scuola Normale Superiore
- **Andrea Macrì** — Scuola Normale Superiore
- **Francesco Tarantelli** — Università di Bologna
- **Fabrizio Lillo** — Scuola Normale Superiore

Scientific Committee

- Paolo Barucca — University College London
- Mihai Cucuringu — University of Oxford / UCLA
- Fosca Giannotti — Scuola Normale Superiore
- Fabrizio Lillo — Scuola Normale Superiore
- Giulia Livieri — London School of Economics
- Andrea Macrì — Scuola Normale Superiore
- Manuel Naviglio — Scuola Normale Superiore
- Andrea Prampolini — Intesa Sanpaolo
- Francesco Tarantelli — Università di Bologna
- Ioanna-Yvonni Tsaknaki — Scuola Normale Superiore
- Edoardo Vittori — Intesa Sanpaolo
- Stefan Zohren — University of Oxford