



Association for  
Computing Machinery

*Advancing Computing as a Science & Profession*

## **MEDIA ADVISORY**

### **ICAIF'21 Showcases How Artificial Intelligence Is Transforming Finance**

#### ***ACM International Conference on AI in Finance Returns by Popular Demand***

**New York, NY, October 26, 2021** – ACM, the Association for Computing Machinery, will hold the [2<sup>nd</sup> ACM International Conference on AI in Finance](#) (ICAIF'21), virtually from November 3-5, 2021. More than 950 people registered for the inaugural conference, which was held in 2020.

Advances in artificial intelligence (AI), including machine learning (ML), are being felt throughout society and the global economy, with some of the most significant impacts occurring in finance: including financial markets, financial services, and the global financial system more broadly. ICAIF aims to bring together researchers from a variety of disciplines to share technical advances and insights on the effects of AI & ML on the finance world.

ICAIF'21 invites high quality papers on theoretical, empirical, or experimental research, from industry, academia, government and non-profit organizations. Topics explored at ICAIF include financial systems as multi-agent systems; AI techniques for simulation of markets and economies; computational game-theoretic analysis of financial scenarios; ethics and fairness of AI in Finance; and machine learning for pricing, trading, and portfolio management.

This year's program includes four keynote talks, six workshops & tutorials, and numerous research presentations.

#### **ICAIF Highlights**

Visit [here](#) to explore the full ICAIF'21 program.

#### **Keynotes:**

*"AI in Finance: Challenges and Solutions"*

*Manuela Veloso, JP Morgan AI Research & Carnegie Mellon University*

Veloso will delve into her understanding of the challenges and solutions of combining the fields of AI and Finance. She will address issues related to data, learning from experience, business impact, and values, such as fairness and explainability of AI. She

will also share details of specific research and development projects carried out by her AI Research team at JPMorgan Chase.

“The Brave New World of Too Much Data: Using Firm-Level Micro-Data to Model the Overall Economy”

*George Axtell, George Mason University and the Santa Fe Institute*

Axtell will first describe dozens of gross regularities and patterns in economic and finance data sets that make explaining the data difficult. Then he will offer a new approach to analyzing large swaths of the data using large-scale multi-agent systems. Axtell’s resulting computational model of all firms in the U.S. private sector is a starting point for understanding the economy as a whole, even though significant quantities of data yet fall outside the model.

“Biases of Learning Machines in Finance: Some Examples”

*Charles-Albert Lehalle, Imperial College London and Abu Dhabi Investment Authority*

Lehalle will examine the role that biases play in machine learning algorithms as applied to applications in finance. He will list different ways AI experts compensate for such biases, inspired by recent research on the "ethics of AI". He will conclude by surveying the scope of stochastic control: e.g. what kind of biases are learned controllers submitted to?

“Strength in Depth? Deep Learning for Finance”

*Stephen Roberts, University of Oxford*

Roberts will look at some of the concepts underpinning advances in deep learning and highlight his recent work using Deep Learning for limit order books, momentum trading, portfolios and execution strategies, amongst other things.

Keynote title (*tbd*)

*Thaleia Zariphopoulou, The University of Texas at Austin*

Zariphopoulou’s area of expertise is financial mathematics and stochastic optimization. She has published extensively in the areas of investments and valuation in incomplete markets, and introduced novel approaches to indifference valuation and dynamic risk preferences.

## [WORKSHOP & TUTORIALS](#)

Women in AI and Finance

Time Series in Finance: Representations and Learning

AI in Africa for Sustainable Economic Development

AI Governance, Compliance and Safety in Financial Services

Natural Language Processing and Network Analysis in Financial Applications

Explainable AI in Finance (XAI)

## **MEDIA REGISTRATION**

Contact Jim Ormond at [ormond@hq.acm.org](mailto:ormond@hq.acm.org) for media registration and related inquiries.

### **About ACM**

[ACM, the Association for Computing Machinery](#), is the world's largest educational and scientific computing society, uniting computing educators, researchers and professionals to inspire dialogue, share resources and address the field's challenges. ACM strengthens the computing profession's collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking.

###