# **GENERATIVE AI IN FINANCE**



# October 23 and 24, 2024 John Molson School of Business

## **Conference Organizers:**

Professor Dr. Juliane Proelss (Concordia University)
Professor Dr. Denis Schweizer (Concordia University)

### **Sponsors:**



Innovation and Financing





### PROGRAM OVERVIEW

### Wednesday, October 23, 2024

00.20 - 00.43	Light Dieaklast & Negisti ation
08:45 - 09:15	Opening
09:15 - 10:45	Parallel Sessions Ia and Ib
10:45 - 11:00	Coffee Break
11:00 - 12:30	Parallel Sessions 2a and 2b
12:30 - 13:20	Lunch
13:20 - 14:50	Parallel Sessions 3a and 3b
14:50 - 15:05	Coffee Break
15:05 – 16:45	Fire Talks I
18:30 – 21:30	Gala Dinner

08.20 - 08.45 Light Breakfast & Registration

### Thursday, October 24, 2024

08:20 - 08:45	Light Breakfast & Coffee
08:45 - 09:45	Fire Talks 2
09:45 - 10:05	Extracting Regulatory Document Metadata with GenAl
10:05 - 10:20	Coffee Break
10:20 - 12:20	Parallel Sessions 4a and 4b
12:20 - 13:15	Lunch
13:15 – 14:45	Parallel Sessions 5a and 5b
14:45 – 15:00	Coffee Break
15:00 - 16:00	Keynote Bryan Kelly (Yale University)

16:00 – 18:00 Networking Soirée with Gourmet Bites

### **SCIENTIFIC COMMITTEE**

- ·Carol Alexander (University of Sussex)
- ·Daniel Blaseg (ESADE Business School)
- ·Douglas Cumming (Florida Atlantic University)
- ·Christian Fieberg (Hochschule Bremen)
- ·Lars Hornuf (Dresden University of Technology)
- ·Fabian Hollstein (Universität des Saarlandes)
- ·Sofia Johan (Florida Atlantic University)
- ·Costas Lambrinoudakis (Leeds University Business School)
- ·Paul P. Momtaz (TUM School of Management)
- ·Denis Schweizer (Concordia University)
- ·Michael Weber (University of Chicago)
- ·Dacheng Xiu (University of Chicago)
- ·Adam Zaremba (Montpellier Business School)
- ·Guofu Zhou (Olin Business School)

### **CONFERENCE VENUE AND DIRECTIONS**

The Generative AI in Finance Conference will take place at the John Molson School of Business, on Concordia University's downtown campus. The conference venue will be on the 10th floor. A registration table will be set up outside of room 10.121 right off the elevator.





John Molson School of Business (MB Building) 1600 Boul. de Maisonneuve Ouest., Montreal (corner of Guy St and Boul. de Maisonneuve O.)

## **PROGRAM**

### Wednesday, October 23, 2024

8:20 - 8:45 MB 10.121

Light Breakfast & Registration

8:45 - 9:15 MB 10.121

Opening

9:15 - 10:45 MB 10.302

Session 1a: Market Dynamics and Al Forecasting

Chair: Sebastiano Manzan (Baruch)

Order Flow and Cryptocurrency Returns Alexia Anastasopoulos, Ilias Tsiakas, Alex Maynard, Fred Liu

(University of Guelph)

Presenting Author: Alexia Anastasopoulos

Discussant: Adam Bozman

Processing and Predicting Merger Outcomes with Generative Al

Adam Bozman (Washington State University), Douglas (DJ) Fairhurst (Washington State University), Daniel Greene (Clemson University)

Presenting Author: Adam Bozman Online Discussant: Kristina Lalova

**Predicting Bankruptcy: Ask the Employees** 

John Knopf (University of Connecticut), Kristina Lalova (Michigan State

Online Presenting Author: Kristina Lalova Discussant: Alexia Anastasopoulos

9:15 - 10:45 **MB 10.245** 

Session 1b: AI in Asset Pricing and Risk Management

Chair: Yiuman Tse (University of Missouri - St Louis)

Risk-Neutral Pricing of Quanto Options with Generative Machine **Learning Techniques** 

Young Shin Kim (Stony Brook University), Hyun-Gyoon Kim (Ajou University), Frank J. Fabozzi (Johns Hopkins University) Presenting Author: Aaron Kim (a.k.a. Young Shin Kim)

Online Discussant: Yiming Zhang

Quantile Machine Learning and the Cross-Section of Stock Returns: Robust Risk Premia and Machine Learning Risk Forecasts

Fred Liu (University of Guelph) Presenting Author: Fred Liu Discussant: Aaron Kim

Mutual Funds in the Age of Al

Yiming Zhang (Hong Kong University of Science and Technology,

Department of Finance)

Online Presenting Author: Yiming Zhang

Discussant: Fred Liu

10:45 - 11:00 MB 10.121

Coffee Break

11:00 - 12:30 MB 10.302

Session 2a: Language Models, News, and Financial **Predictions** 

Chair: Yosef Bonaparte (University of Colorado at Denver)

Contextualized Sentiment Analysis using Large Language Models Christian Breitung, Garvin Kruthof, Sebastian Müller (Technical

University of Munich)

Presenting Author: Christian Breitung Discussant: Sebastiano Manzan

Predicting Financial Stability through Textual Data: Insights from **Earnings Calls and Central Bank Communications** 

Christian Fieberg (HSB Hochschule Bremen - City University of Applied Sciences), Matthies Hesse (University of Bremen), Gerrit Liedtke (University of Bremen), Adam Zaremba (Montpellier Business

Presenting Author: Gerrit Liedtke Discussant: Christian Breitung

News, Sentiment and Trading

Mingyuan Kong (Baruch), Luca Barbaglia (JRC-EC), Sebastiano

Manzan (Baruch)

Presenting Author: Sebastiano Manzan

Discussant: Gerrit Liedtke

11:00 - 12:30 MB 10.245

Session 2b: Al-Driven Insights in Real Estate and Finance

Chair: Aaron Kim (a.k.a. Young Shin Kim) (Stony Brook University)

Optimizing Real Estate Portfolios: The Role of AI in Geographic **Diversification** 

Timothy Dombrowski (University of Missouri-St. Louis), Cayman Seagraves (University of Tulsa)

Presenting Author: Timothy Dombrowski

Online Discussant: Paolo Giudici

SAFE Generative Artificial Intelligence in Finance

Golnoosh Babaei (University of Pavia), Paolo Giudici (University of Pavia and European University Institute)

Online Presenting Author: Golnoosh Babaei

Discussant: Chongyu Wang

The Impact of Generative AI on Tenant-Driven Commercial Real **Estate Valuation** 

Chongyu Wang, Jingfang Wang, Tingyu Zhou (Florida State University)

Presenting Author: Chongyu Wang Discussant: Timothy Dombrowski

12:30 - 13:20 MB 10.121 Lunch

13:20 - 14:50 **MB 10.302** 

Session 3a: Al-Driven Analysis in Climate and Finance Chair: Chongyu Wang (Florida State University)

Navigating the Storm: Evaluating Company's Exposure and Disclosure to Climate Regulation Through Al

Lucia S Gao, Poojan Patel (University of Massachusetts, Boston)

Presenting Author: Poojan Patel

Discussant: Yiuman Tse

Firm-Level Input Price Changes and Their Effects: A Deep Learning Approach

Sudheer Chava (Georgia Tech), Wendi Du (University of South Carolina), Indrajit Mitra (Federal Reserve Bank of Atlanta), Agam Shah (Georgia Tech), Linghang Zeng (Babson College)

Presenting Author: Wendi Du Discussant: Poojan Patel

**Hedging Financial Turbulence Risk with Text Analysis** 

Qingfu Liu (Fudan University), Yiuman Tse (University of Missouri - St Louis), Chuanjie Wang (Fudan University), Jiaer Yang (Fudan University)

Presenting Author: Yiuman Tse

Discussant: Wendi Du

13:20 - 14:50 **MB 10.245** 

Session 3b: Al and News Impact on Markets

Chair: Christian Fieberg (HSB Hochschule Bremen - City University of Applied Sciences)

The Different Networks of Firms Implied by the News

Gustavo Schwenkler (Santa Clara University), Victor Hilt (Wellington Management)

Presenting Author: Gustavo Schwenkler

Discussant: Donald Bowen

Predicting Market Reactions to News: An LLM-Based Approach Using Spanish Business Articles

Jesus Villota Miranda (CEMFI)

Presenting Author: Jesus Villota Miranda

Discussant: Gustavo Schwenkler

Measuring and Mitigating Racial Disparities in Large Language Model Mortgage Underwriting

Donald Bowen (Lehigh University), Luke Stein (Babson College), McKay Price (Lehigh University), Ke Yang (Lehigh University)

Presenting Author: Donald Bowen Discussant: Jesus Villota Miranda

14:50 - 15:05 MB 10.121 Coffee Break

15:05 - 16:45 MB 10.302 Fire Talks 1

Chair: Costas Lambrinoudakis (University of Leeds)

The Digital Trail of the Main Street and Stock Price Synchronicity Argyro Angeli, Konstantinos Bozos, Efthymia Symitsi, Costas Lambrinoudakis (University of Leeds) Presenting Author: Argyro Angeli

AI, Financial Statements, and Structured Data

Marcelo Farr (Universidad Adolfo Ibáñez), William C. Johnson (University of Massachusetts Lowell), Ariel Markelevich (Suffolk University), Alexis Montecinos Bravo (Suffolk University) Presenting Author: William C. Johnson

Large Language Models: A New Tool for Portfolio Construction? Ahmadreza Hajaghaie, Ruppa K. Thulasiram (University of Manitoba)

Presenting Author: Ahmadreza Hajaghaie

Generative Artificial Intelligence Landscape and Venture Investments

Maya Cara (University of College London), Lora Dimitrova (University of Exeter), Haibo Jiang (UQAM) Presenting Author: Haibo Jiang

Measuring the Economic Impact of AI through Forward-Looking Firm Communications

Jiacheng Liu (Purdue)

Presenting Author: Jiacheng Liu

The Artificial Intelligence Premium

Runfeng Yang (Ca<sup>\*</sup>Foscari University of Venice), Yufeng Mao (University of Padova), Massimiliano Caporin (University of Padova), Juan-Angel Jimenez-Martin (Universidad Complutense de Madrid)

Presenting Author: Juan-Angel Jimenez-Martin

**U.S. Elections, Financial Sentiment, and House Prices**Hayden Klok, Shaun Bond (University of Queensland)

Presenting Author: Hayden Klok

SentiLlama: Revealing the Potential Effectiveness of Finetuning Large Language Models in Financial News Sentiment Analysis

Yi-Shuai Ren (School of Public Administration, Hunan University), Tony Klein (Technische Universität Chemnitz), Chaoqun Ma (Business School, Hunan University), Yuyou Chen (Business School, Hunan University)

Presenting Author: Yi-Shuai Ren

18:30 - 21:30

Gala Dinner

1822 Blvd. De Maisonneuve Ouest, Montreal, Quebec H3H 1J8

# **PROGRAM**

### Thursday, October 24, 2024

8:20 - 8:45 MB 10.121 Light Breakfast & Coffee

8:45 - 9:45 MB 10.302 Fire Talks 2

Chair: Aoran Zhang (Toronto Metropolitan University)

Ideology-Driven Sentiment Scores: Enhancing Stock Return Predictions with Large Language Models

Yue Fang (Zhejiang University) Presenting Author: Yue Fang

Al and the Future of Data in Financial Markets

William C. Johnson (University of Massachusetts Lowell), Ariel Markelevich (Suffolk University)

Presenting Author: Ariel Markelevich

Generative AI and Labour Productivity: A Field Experiment on Coding Leonardo Gambacorta (Bank for International Settlements, CEPR), Han Qiu (Bank for International Settlements), Shuo Shan (Ant Group), Daniel M. Rees (Bank for International Settlements)

Presenting Author: Han Qiu

Generative AI and Crowdfunding Platforms: Investment Strategies and Risk Management

Aurélie Sannajust (Kedge Business School, Marseille Campus) Presenting Author: Aurélie Sannajust

Have We Reached AGI? Comparing ChatGPT, Claude, and Gemini to Human Literacy and Education Benchmarks

Mfon Akpan (Methodist University) Presenting Author: Mfon Akpan

9:45 - 10:05 MB 10.302

Extracting Regulatory Document Metadata with GenAl Presenter: Robert Wardrop (Co-founder & Director, Cambridge

Centre for Alternative Finance)

10:05 - 10:20 MB 10.121 Break

10:20 - 12:20 MB 10.302 Session 4A: Al and Machine Learning Applications in Finance

Chair: Wenjun Zhou (The University of Tennessee, Knoxville)

Investor - Fund Manager Behavioral Discrepancy: Does it affect portfolio performance?

Wolfgang Karl Härdle (Humboldt University), Qingfu Liu (Fudan University), Chuanjie Wang (Fudan University), Xiaorui Zuo (National University of Singapore)

Online Presenting Author: Xiaorui Zuo

Discussant: Paul Momtaz

CovenantAI - New Insights into Covenant Violations

Anthony Saunders (NYU Stern School of Business), Sascha Steffen

(Frankfurt School), Paulina Verhoff (Frankfurt School)

Presenting Author: Paulina Verhoff Online Discussant: Xiaorui Zuo

Generating Exposures with Large Language Models

Artem Streltsov (Cornell University, Johnson Graduate School of

Management)

Presenting Author: Artem Streltsov Discussant: Paulina Verhoff

Cryptocurrency Investing with Machine Learning

Paul Momtaz, Hannes Urban (TUM) Presenting Author: Paul Momtaz Discussant: Artem Streltsov

10:20 - 12:20 MB 10.245 Session 4b: Al and Investor Strategies in Global Markets

Chair: Jan Hanousek Jr. (University of Memphis)

The Double-Edged Sword of AI: Market Gains and Inequality Concerns

Yosef Bonaparte (University of Colorado at Denver)

Presenting Author: Yosef Bonaparte Discussant: Douglas Araujo

Shaping the Future: Al Automation and Corporate Investment Strategies in Mergers and Acquisitions

Dimitrios Gounopoulos (University of Bath), Chen Huang (Queen Mary University of London), Geoff Wood (Western University), Aoran Zhang

(Toronto Metropolitan University) Presenting Author: Aoran Zhang

Discussant: Yi Zhou

Harnessing Artificial Intelligence for Monitoring Financial Markets

Matteo Aquilina, Douglas Araujo, Gaston Gelos, Taejin Park, Fernando Pérez-Cruz (Bank for International Settlements)

Presenting Author: Douglas Araujo Discussant: Yosef Bonaparte

Using Generative AI to Predict the Weather Impact on Future Stock Returns

Yi Zhou (San Francisco State University)

Presenting Author: Yi Zhou Discussant: Aoran Zhang 12:20 - 13:15 MB 10.121 Lunch

13:15 - 14:45 MB 10.302 Session 5a: Al Insights: Credit, Markets, and Sustainability
Chair: Paul Momtaz (TUM)

# Writing Quality and Soft Information in the GenAl Age: Evidence from Online Credit Markets

Lin William Cong (Cornell University), Yanhong Guo (Dalian University of Technology), Xin Zhao (Dalian University of Technology), Wenjun Zhou (The University of Tennessee, Knoxville)

Presenting Author: Wenjun Zhou Online Discussant: Simon Xu

#### Climate Solutions, Transition Risk, and Stock Returns

Shirley Lu (Harvard Business School), Edward Riedl (Boston University), George Serafeim (Harvard Business School), Simon Xu (Harvard Business School)

Online Presenting Author: Simon Xu Online Discussant: Vincent Tena

#### Al Adoption, Incentives, and Market Outcomes

Gilles Chemla (Imperial College Business School), Vincent Tena (Université Paris Dauphine - PSL) Online Presenting Author: Vincent Tena

Discussant: Wenjun Zhou

13:15 - 14:45 MB 10.245

#### Session 5b: Social Networks, AI, and Financial Markets

Chair: Costas Lambrinoudakis (University of Leeds)

#### Transmission Bigs in Financial News

Khaled Obaid (Mississippi State University), Kuntara Pukthuanthong (University of Missouri)

Presenting Author: Khaled Obaid

Discussant: Lin Peng

# Wisdom or Whims? Decoding Investor Trading Strategies with Large Language Models

Shuaiyu Chen (Purdue), Lin Peng (Baruch/CUNY), Dexin Zhou (Baruch/CUNY)

Presenting Author: Lin Peng Discussant: Jan Hanousek Jr.

#### **X** Bots and Earnings Announcements

Jan Hanousek Jr. (University of Memphis), Jan Hanousek (Mendel University and CEPR), Konstantin Sokolov (University of Memphis) Presenting Author: Jan Hanousek Jr.

Discussant: Khaled Obaid

14:45 - 15:00

Coffee Break

15:00 - 16:00 MB 9CD (9th floor)

**Keynote**Bryan Kelly (Yale University)

Join Online (free access): https://concordia-ca.zoom.us/webinar/register/WN\_fOvLpi|3SM6vpEXrgz3n8A



Bryan Kelly is the Frederick Frank '54 and Mary C. Tanner Professor of Finance at the Yale School of Management, a Research Fellow at the National Bureau of Economic Research, Associate Director of SOM's International Center for Finance, and is the head of machine learning at AQR Capital Management, LLC.

Professor Kelly's primary research fields are asset pricing and financial econometrics. He is interested in issues related to financial machine learning; volatility, tail risk, and correlation modeling in financial markets; banking sector systemic risk; financial intermediation; and financial networks. His papers in these areas have been published in American Economic Review, Quarterly Journal of Economics, Journal of Political Economy, Journal of Finance, Journal of Financial Economics, and Review of Financial Studies. He is co-editor of the Journal of Finance and the Journal of Financial Economics.

Before joining Yale, Kelly was a tenured professor of finance at the University of Chicago Booth School of Business. He earned a bachelor's degree in economics from the University of Chicago, a master's degree in economics from University of California San Diego, and a PhD in finance from New York University's Stern School of Business. Kelly worked in investment banking at Morgan Stanley prior to pursuing his PhD.

16:00 - 18:00 MB 3.130 (3rd floor) Cloud Deck

Networking Soirée with Gourmet Bites