Swiss National Science Foundation

Data Portal

Narrative Digital Finance: a tale of structural breaks, bubbles & market narratives

Joerg Osterrieder

01.11.2023 – 31.10.2026

Overview

Grant number

213370

Funding scheme

COST (European Cooperation in Science and Technology)

Call

COST 2022

Approved amount

236,118 CHF

Status

Ongoing

Research institution

Berne University of Applied Sciences – BFH

Institute

Berner Fachhochschule BFH Bern

Output data

4 Scientific publications
6 Collaboration
6 Academic events
4 Knowledge transfer events
3 Awards

Summary

Scientific abstract

Large fluctuations, instabilities, trends, and uncertainty of financial markets constitute a substantial challenge for asset management companies, pension funds, and regulators. Nowadays, most asset management companies and financial institutions follow a so-called systematic trading approach in their investment decisions. Systematic trading refers to applying predefined, rule-based trading strategies for buy-and-sell order...

Show more

Persons

Applicants

- Joerg Osterrieder, Departement Wirtschaft Berner Fachhochschule BFH, Switzerland

Employees

- Karolina Bolesta
- Marius Klein, Bern University of Applied Sciences, Switzerland
- Daniel Kucharczyk, Zurich University of Applied Sciences, Switzerland
- Gabin Taibi, Marketing and Global Management Institute Business School Bern University of Applied Sciences, Switzerland

Project partners

- Christian Hopp, Department of Business Institut Applied Data Science & Finance Bern University of Applied Sciences, Switzerland

Disciplines and keywords

mySNF disciplines (provided by researchers): Economics

Fields of research (mapped from mySNF Disciplines): Economics

Keywords: artificial intelligence, financial structural breaks, machine learning, asset bubbles, digitalisation, finance

Scientific publications

Reaction Times to Economic News in High-Frequency Trading: An Analysis of Latency and Informed Trading reacting to Macro-News Announcements

Osterrieder, Joerg; Schlamp, Stefan

Reaction Times to Economic News in High-Frequency Trading: An Analysis of Latency and Informed Trading reacting to Macro-News Announcements. In *SSRN*.

2025

Stylized facts of metaverse non-fungible tokens

Chan, Stephen; Chandrashekhar, Durga; Almazloum, Ward; Zhang, Yuanyuan; Lord, Nicholas; Osterrieder, Joerg; Chu, Jeffrey

Stylized facts of metaverse non-fungible tokens. In *Physica A: Statistical Mechanics and its Applications*, 130103–130103.

2024

Share buybacks: a theoretical exploration of genetic algorithms and mathematical optionality

Osterrieder, Joerg

Share buybacks: a theoretical exploration of genetic algorithms and mathematical optionality. In *Frontiers in Artificial Intelligence, 6*, 1.

2023, Open Access

Examining share repurchase executions: insights and synthesis from the existing literature

Osterrieder, Joerg; Seigne, Michael

Examining share repurchase executions: insights and synthesis from the existing literature. In *Frontiers in Applied Mathematics and Statistics, 9*, 1.

2023, Open Access

Collaboration

Humboldt-University Berlin

- in-depth/constructive exchanges on approaches, methods or results
- Research Infrastructures

Germany

Deutsche Börse AG

- in-depth/constructive exchanges on approaches, methods or results
- Exchange of personnel
- Industry/business/other use-inspired collaboration

Germany

MSCA Industrial Doctoral Network on Digital Finance

- in-depth/constructive exchanges on approaches, methods or results
- Research Infrastructures
- Exchange of personnel
- Industry/business/other use-inspired collaboration

Germany

Quoniam

- in-depth/constructive exchanges on approaches, methods or results
- Publication
- Exchange of personnel
- Industry/business/other use-inspired collaboration

Germany

Babes-Bolyai University

- in-depth/constructive exchanges on approaches, methods or results

Romania

American University of Sharjah

- in-depth/constructive exchanges on approaches, methods or results

United Arab Emirates

Academic events

COST FinAI Meets Iceland

Type: Self-organised

27.08.2024, Reykjavík, Iceland

COST FinAI Meets Coimbra

Type: Self-organised

10.07.2024, Coimbra, University of Coimbra, Portugal

COST FinAI PhD School on Fintech and AI in Finance

Type: Self-organised

10.06.2024, University of Twente, Netherlands

COST Training School - Cosenza (Università della Calabria)

Type: Self-organised

03.06.2024, Arcavacata, Università della Calabria, Italy

COST FinAI Brussels

Type: Self-organised

14.05.2024, Brussels, Belgium

Official MSCA Kick-off Event Official MSCA Kick-off Event

Type: Self-organised

30.01.2024, Vienna, Austria

Knowledge transfer events

ING-UT Workshop Data Analytics and Quantitative Models in Banking and Academia

Type: Self-organised

25.02.2025, Amsterdam, Netherlands

Fourth International Conference on Mathematics and Statistics (ICMS25)

Type: Talk

20.02.2025, Sharjah, United Arab Emirates

15th Annual MENA CFO conference:

Type: Workshop

17.09.2024, Dubai, United Arab Emirates

Expert Day

Type: Workshop

19.05.2024, FHNW Campus Brugg-Windisch, Switzerland

Awards

2024 International Engineering and Technology Institute Fellowship

2025

Rebellion Research Top 2024 European Quant & Finance Professors

2024

International Advanced Fellowship-UBB, STAR-UBB Academic Research Network of Excellence (STAR-UBB-N)

2023