SIMIS-CDEF Seminar Series: No.2 (2025)

Time: September 29th, 2025 (Monday), 2.00-4.00 pm (Beijing Time)

Venue: R810, Level 8, Block A, International Innovation Plaza, No. 657 Songhu Road, Yangpu District, Shanghai, China

Organizer: SIMIS Center for Digital Economy and Finance, SIMIS-CDEF

Chair: Yahong Zhou (周亚虹), Shanghai University of Finance and Economics & SIMIS

Measuring Misinformation in Financial Markets

Authors: Jianqing Fan, Qingfu Liu, Yang Song, Zilu Wang

Speaker: Zilu Wang (王子路), Fudan University

Abstract: We propose a framework for measuring firm-level misinformation. By leveraging advanced machine learning and AI technologies, we transform and categorize unstructured text into comparable information, extract "reliability-weighted consensus" from each set of comparable information and quantify the degree of misinformation based on divergence from the "consensus". Applying our framework to analyze 254.8 million textual materials, we validate its effectiveness in quantifying misinformation. We find that firms with weaker balance sheets and poorer governance structures exhibit higher misinformation, and misinformation spikes during major corporate events. We also demonstrate that misinformation significantly impacts investors' attention, trading volumes, stock returns, and risks.

Let Tables Talk: Auditing and Enhancing Corporate Narratives with LLMs

Authors: Jianqing Fan, Qingfu Liu, Rongkai Pei, Zilu Wang

Speaker: Rongkai Pei (裴荣凯), Fudan University

Abstract: Narratives in annual reports are a "double-edged sword": they can either enrich or distort investors' interpretation of a firm's fundamentals. We introduce a novel LLM-driven framework, Table-Talk, that systematically decomposes this duality by benchmarking each narrative against an anchor text, an objective narrative generated from the corresponding tables in the same filing using a fine-tuned generative AI. Applying our framework to 42,581 annual reports from the Chinese A-share market, we find that the degree of distortion (or complementarity) in narrative content is negatively (or positively) associated with both contemporaneous and future firm fundamentals. We also show that narrative tones carrying opposing economic implications from tables depend on a firm's underlying fundamentals. To operationalize this insight for investors, we develop Table-Talk-Alpha, a downstream deep learning model that distills a full annual report into a fundamental signal enriched by contextual insights from narratives while suppressing distortion. In empirical tests, a hedged portfolio constructed using Table-Talk-Alpha's predictions yields a statistically significant 1.22% monthly excess return, robust to adjustments for standard factor models.

Contact: yufengmao@simis.cn

上海数学与交叉学科研究院
SHANGHAI INSTITUTE FOR MATHEMATICS AND INTERDISCIPLINARY SCIENCES