



## Notice for the PhD Viva Voce Examination

Mr Krishna T A (Registration Number: 1920071), PhD scholar at the School of Business and Management, CHRIST (Deemed to be University), will defend his PhD thesis at the public viva-voce examination on Saturday, 4 February 2023 at 11.00 am in the Syndicate Room, (Room No. 802), Ground Floor, Auditorium Block, CHRIST (Deemed to be University), Bengaluru - 560029.

- Title of the Thesis** : **An Investigation of Multifractality and Herd Behaviour in the Indian Capital Market during Macro-Political Events: An Empirical Evidence through Econophysics Approach**
- Discipline** : **Management**
- External Examiner**  
(Outside Karnataka) : **Dr Silas Sargunam S**  
Associate Professor and Head  
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- External Examiner**  
(Within Karnataka) : **Dr P Paramashivaiah**  
Professor  
Department of Studies and Research in Commerce  
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The members of the Research Advisory Committee of the Scholar, the faculty members of the Department and the School, interested experts and research scholars of all the branches of research are cordially invited to attend this open viva.

**Place:** Bengaluru  
**Date:** 31 January 2023

**Registrar**

## ABSTRACT

The financial markets worldwide exhibit several complex and dynamic features in them. Among them, Multifractality is one of the most significant features of complex systems, and it has been identified and examined in the financial markets in recent years. Besides, studies in the past confirm that there exists a linkage between multifractality and herding behaviour in financial markets during extreme events. The current study attempts to investigate the presence of Multifractality caused by herding behaviour in the segments of the Indian capital market during the macro-political events. For this, the macro-political events were classified into three broad categories pre-scheduled events, intensified geopolitical events and uncertain macro-political events. Further, two major segments of the Indian capital market, namely, the equity and the Forex segment, were examined. The study employed the Multifractal Detrended Fluctuation Analysis approach to examine the Multifractality caused by herding behaviour during macro-political events. In addition, the study also measured the volatility surface and quantified the information uncertainty present in the selected segments of the Indian capital market.

The findings suggest that the macro-political events impact the multifractality and herding behaviour in the examined segments of the Indian capital market. However, the degree of the multifractality caused by the herding behaviour traced in the market segments is event-specific. It differs based on the type of macro-political event. The overall analysis suggests that the pre-scheduled macro-political event's impact was higher for both equity and forex segments of the Indian capital market. Further, a high degree of multifractality caused by herding behaviour was traced in the Nifty segments during the intensified geopolitical events. On the other hand, uncertain macro-political events had no impact on the multifractality caused by the herding behaviour in equity and forex segments. The study results provide some significant implications for various market participants for investment decision-making and portfolio risk diversification during the macro-political events in India.

*Keywords: Econophysics, Event study, Macro-political events, Herding behaviour and Multifractality.*

### Publications:

1. **Krishna T. A.** and Suresha B. (2021). Do geopolitical tensions instigate mindless following in stock markets? An empirical enquiry into the indices of CNX Nifty HFT. *Investment Management and Financial Innovations*, 18(2), 335-349. Doi:10.21511/imfi.18(2).2021.27
2. **Krishna T. A.** and Suresha B. (2022). Intensified geopolitical conflicts and herding behavior: An evidence from selected Nifty sectoral indices during India-China tensions in 2020. *Investment Management and Financial Innovations*, 19(1), 300-312. Doi:10.21511/imfi.19(1).2022.23