

POSTGRADUATE SEMINAR SERIES


Topic Defence Seminar

Topic Title : **Geomagnetic Storms and Market Efficiency**

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Abstract : This research is proposed to investigate how information frictions would affect market efficiency. We focus on an exogenous phenomenon--geomagnetic storms, and reason that geomagnetic storms would negatively affect signal processing and information transmission, which in turn may cause investors' avoiding of trading (especially high-frequency trading) and lower price efficiency. This study examines whether, how, and to what extent that geomagnetic storm activities affect stock price efficiency.

Information frictions affects the flow of information and assets trading and pricing. Existing studies of the impact of information frictions on information efficiency mainly focus on market factors and regulatory policies such as transactions cost and trading constraints. In this study, we identify a non-anthropoc factor that will affect information processing and trading decisions. Geomagnetic storm activities, one of the main disturbances of the earth's magnetosphere, may cause disruption in microwave networks and even damage global communication satellite systems, leading to changes in the stability of signal processing and a decrease in the speed of information transmission. Such activities are an ideal setting for evaluating the impact of information frictions. On the one hand, geomagnetic storms are erratic and hard to anticipate precisely beforehand; On the other hand, unlike extreme weather, geomagnetic storms are invisible to human eyes and have no direct influence on economic activities. These features allow geomagnetic storms to be exogenous and enable us to identify a causal relationship. Our preliminary results show that the explosion of geomagnetic storms indeed inhibit price discovery and hurt market efficiency.

Date : **29 April 2022, Friday**
Time : **10:00 am – 11:00 am**
Venue : **Zoom Meeting** 
Meeting ID: 992 9478 5561 Passcode: 02633128
Language : **English**



*** All are Welcome ***