Dr. Hans-Peter Burghof is Professor of Banking and Finance at the University of Hohenheim in Stuttgart. His research interest is focussed on financial contracts and financial intermediation, financial systems and the regulation of financial institutions and markets. He is also member of the Stock Exchange Council of Boerse Stuttgart, with whom he joined a cooperation in research. Besides publishing in international and national journals, his research and positions gained high visibility in the German public during the financial crisis from 2007 onwards.

**Topic:** «High-Frequency Trading in Order-Driven Markets»

**Abstract:**

High-frequency trading has gained great importance in modern exchanges. The speed of trading has increased with improving network technology provided by the stock exchanges. We measure the order dynamics with an accuracy of microseconds. Our three proxies show that large parts of active trading happens within a fraction of a second. In some cases, the data indicate that almost all trading is done by algorithms. In the second part, we create a few-type market and introduce a predatory algorithm that is able to identify the fundamental trader’s orders with an adjustable success rate. The result is a lower bid-offer spread in comparison to a market without an algorithmic trader. The price is paid by the fundamental trader, who makes less profit from the information he seeds to the market.