

## Panel Discussion

Monday, September 9, 2019, 17:10-18:00,  
Ceremonial Hall, LC - Learning Center (LC.0.000),  
WU Vienna, Welthandelsplatz 1, 1020 Wien

## "The big data revolution in mathematical finance"

### Panellists:

- **Isabelle Flückiger**  
Managing Director - Accenture, leading the Financial Services Applied Intelligence practice and solutions in Austria, Switzerland, Germany & Russia
- **Nikolaus Hautsch**  
Professor of Finance and Statistics of University of Vienna
- **Jonas Hirz**  
Boston Consulting Group (BCG) and Head of the Data Science Section of the Actuarial Association of Austria (AVÖ)
- **Sebastian Jaimungal**  
Professor at the Department of Statistical Sciences of University of Toronto, Director of the professional Masters of Financial Insurance program, Chair for the SIAM activity group in Financial Mathematics and Engineering (SIAG/FM&E), Fields-CQAM lab leader for the Systemic Risk Analytics lab.
- **Hannes Mösenbacher**  
Chief Risk Officer and Member of Management Board of Raiffeisen Bank International AG

### Moderator:

- **Josef Teichmann**  
Professor of Financial Mathematics, ETH Zürich

### Abstract:

The financial industry has enthusiastically and profitably embraced big data and computational algorithms such as machine learning to (sometimes seemingly) better substantiate trading and risk management decisions. Specific examples include algorithmic trading, sophisticated pattern recognition methods to find drivers of stock market evolution, neural network approaches to calibration, scenario generation, prediction and many more. This opens new and exciting directions for research in quantitative finance: the development of new statistical methods and tools to treat high dimensional time series, research on automatic trading as well as machine learning techniques for traditional fields such as hedging of derivatives or portfolio optimization. It of course also urges broader questions related to the impact of the big data revolution on financial stability. In the panel discussion we want to shed light on these new developments from the perspective of financial industry, regulators and academia.