PhD Student Fellowships

The African Institute of Financial Markets and Risk Management (AIFMRM) in the Faculty of Commerce at the University of Cape Town is a postgraduate institute committed to increasing the extent and depth of expertise in the African financial service industry. The institute conducts rigorous scholarly research and takes a critical and quantitative approach to the study of financial markets, risk management, and financial innovation.

AIFMRM is inviting applications for PhD Student Fellowships. The application deadline is 15 November 2017 (late applications will be considered until all positions are filled) and appointments are for as soon as is feasible. The tenure of the fellowship is for three years.

We are looking for enthusiastic PhD students with a Master’s degree in economics, finance, computer science, statistics, financial mathematics, or closely related fields. We offer a three-year, fully funded fellowship of R190 000 per annum. Research support is available, e.g. for conference travel and publication costs. We encourage and actively support PhD Students to undertake internships either in the financial industry or with regulatory authorities and central banks during their PhD. AIFMRM has an extensive set of collaborations with leading universities in Europe and the USA and we encourage students who want to broaden their academic horizon to spend a semester abroad during their PhD.

Our key research areas are:

1. **Financial Technology**
   Our research in financial technology focuses on two broad areas: artificial intelligence in finance and distributed ledger technologies. In artificial intelligence, we are particularly interested in applications of deep learning, including: AI and algorithmic trading; robo-advisors; and process automation. However, we are also interested in foundational research in artificial intelligence, specifically around strategic interactions between AI and humans. For our second focus area around distributed ledger technologies, we are particularly interested in applications of blockchain to remittances, payment systems, but also in the broader question of how distributed ledgers will affect the financial system. A PhD student in financial technology could work closely with computer scientists, mathematicians and statisticians, and we explicitly encourage applications from good Master’s students from these fields.

2. **Mathematical and Quantitative Finance**
   Our research in mathematical finance focuses mainly on the theoretical and quantitative modelling of financial markets and instruments, as well as the techniques from numerical analysis, optimization, simulation, stochastic analysis and statistics on which these models are founded. Current research topics include, among others, volatility modelling, multi-factor and multi-curve interest rate modelling, efficient computation of solutions of stochastic differential equations, model risk and uncertainty, calibration methods, optimal hedging strategies for exotic instruments, valuation adjustments and counterparty credit risk, applications of filtering techniques to finance, and the pricing of insurance-linked securities.

3. **Macroeconomics & Finance**
   Our research broadly involves empirical and theoretical analysis of linkages between financial markets and the macro economy; and agency relationships and their impact on firm financial and investment decisions. Current research topics include financial intermediation, micro- and macro-prudential supervision, systemic risk, economic policy, international capital flows, and firm financing choices.
To apply, please send the following:

- A letter of motivation
- A complete CV including the names and contact details of two references
- Academic transcripts

to Co-Pierre Georg (cogeorg@gmail.com, African Institute of Financial Markets and Risk Management, University of Cape Town, Rondebosch 7700, South Africa).

For further questions and enquiries please contact Lizzy Starck (lizzy.starck@uct.ac.za).

The University of Cape Town reserves the right to disqualify ineligible, incomplete and/or inappropriate applications. The University of Cape Town reserves the right to change the conditions of award or to make no awards at all.