Aitor Muguruza

SUMMARY: PhD candidate in Mathematical Finance at Imperial College with 2 years of experience in the finance industry and strong academic background. Autonomous worker and creative problem solver.

EDUCATION

Imperial College London 2016 – present	**MRes + PhD in Mathematical Finance,** *Supervisor: Antoine Jacquier* Research on theoretical properties of rough volatility models and their numerical implementation in several financial contexts as asset pricing (particularly exotics) and risk management Awards: EPSRC scholarship from CDT on Financial Computing and Financial Analytics Papers: On VIX Futures in the rough Bergomi model (with A. Jacquier and C. Martini)
Imperial College London 2015 – 2016	**MSc in Mathematics and Finance,** *Distinction* Focusing on state of the art quantitative methods with a deep mathematical insight, including Stochastic processes, Machine Learning, Levy Processes and Dynamic Portfolio Theory Master Thesis: "Rough volatility: characterisation of VIX in rBergomi and numerical schemes" Awards: Natixis Foundation 2017 best Master's thesis in Quant Finance (across EU and UK)
Complutense Univ. of Madrid 2014 – 2016	**MSc in Banking and Quantitative Finance,** *Distinction* Provided overview of financial markets and their regulation, econometrics, asset allocation and valuation addressed with numerical methods (Monte-Carlo and finite differences).
University of Texas at Austin 2013 – 2014	**Bachelor's Degree in Mathematics,** *First Class* Including graduate level courses in Stochastic Processes and Mathematical Finance. Dissertation: "Single and Multi Period Mean-Variance optimization", *First Class*
University of the Basque Country 2009 – 2013	**Bachelor's Degree in Mathematics,** *2:1* Probability Theory, Real Analysis, Measure Theory, Statistics and Multivariate Analysis among others

WORK EXPERIENCE

Zeliade Systems Apr. – Sept. 2016	**Quantitative Research Intern (Full-time)** • Valuation and calibration schemes of VIX derivatives under rBergomi • Applications of eSSVI in forward variance curve estimation • Successfully designed and analysed numerical schemes for rough volatility models allowing potential path dependent/exotic derivative pricing • Investigated and discovered theoretical properties of rough volatility models • Model-free approach (Optimal Transport) to analyse the consistency of the model
Management Solutions (BBVA Bank) 2014 – 2015	**Internship in Regulatory Consulting (Full-time)** • Analysed the inner regulatory network of BBVA, based on statistical tools; proposed structural/tactical solutions to improve the network • Collaborated with 15 departments and formulated a global project to concentrate the regulatory information • Consistently produced deliverables in deadline-focused regulatory environment along with 2 team partners • Supported the feasibility analysis, cost-benefit analysis, and optimisation process of the project • Enhanced time management by balancing professional and academic responsibilities

ADDITIONAL SKILLS AND ACHIEVEMENTS

Skills	**IT:** C++, MATLAB, Visual Basic, Fortran, R, Python, MS Office **Languages:** Spanish (Native); Basque (Native); French (Beginner)

Leadership and Achievements

- Conductor of Miguel de Unamuno Residence Hall Orchestra (2011-2013), leading a group of 50 people
- Organiser of several Charity Concerts in Bilbao (2011-2013), raised over 1500€ for the food bank in Spain
- Distinguished community service by the University of the Basque Country

Interests	Enjoy running, music and social activities; passionate about travelling