PIOTR ORŁOWSKI **updated on November 15, 2016**

Avenue de Sevelin #13E
1004 Lausanne, Switzerland
Date of birth: 20 march 1984
Nationality: Polish

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EDUCATION

Since September 2010:
Ph.D. candidate in Finance
Swiss Finance Institute at the University of Lugano
Research in theoretical and empirical asset pricing under the supervision of Professor Fabio Trojani. Graduation expected before June 2017.

September 2015 – August 2016:
Visiting Scholar
Kellogg School of Management
Visiting Pre-Doctoral Scholar with Professor Viktor Todorov. Doc.Mobility grant no. P1TIP1_161875 of the Swiss National Science Foundation.

2003 – 2008
M.A. in Quantitative Methods in Economics and Information Systems,
Warsaw School of Economics
Master thesis "Verification of selected Market Microstructure Hypotheses for the Warsaw Stock Exchange", *cum laude*, supervisor: Katarzyna Bień-Barkowska, PhD

August 2006 – January 2007
Tilburg University (Erasmus Exchange Program)
Courses in Econometrics, Quantitative Finance, Risk Theory and Simulation

HONORS, AWARDS and GRANTS

Doc.Mobility grant of the Swiss National Science Foundation, 2015.

Graduate Scholarship of the Swiss Finance Institute to fund the first year of graduate studies at Università della Svizzera italiana, 2010.

Third Prize of the President of the National Bank of Poland for best master thesis in economic sciences defended in Poland in 2008.

Graduate Scholarship, Warsaw School of Economics, 2008-2010.

Scholarship for Academic Excellence, Warsaw School of Economics, 2004-2008.

TALKS

Arbitrage Free Dispersion:
9th Annual SoFiE Conference, (June 2016), 2015 SFI Research Days (June 2015) — Seminars: Kellogg

Big Risk:
2015 SFI Research Days (June 2015) [as *Realized Jump Premia*] — Seminars: Kellogg

Modeling Divergence Swap Rates in Incomplete Option Markets:
R in Finance (May 2016) — invited @ Ketchum Trading LLC

Option returns and risk premia: a direct approach:
8th Annual SoFiE Conference, Pre-Conference for Junior Researchers (June 2015), Society for Financial Econometrics Summer School 2014, Harvard University, USA (July 2014, presented by A. Sali).

An option implied non-parametric approach for filtering stochastic volatility:
Swiss Doctoral Workshop in Finance 2013, Gerzensee (June 2013)

JOB MARKET PAPER

Big risk
I present how to hedge a large family of measures of realised asset price variation in the option market. With the use of trading technology presented in this paper, investors can obtain optimal hedging payoffs for realised variance, as well as certain measures of realised jump variation, in an incomplete option market. The technology thus allows for calculating excess payoffs associated with trading higher order risk in financial markets. Sample averages of excess payoffs are natural estimates of risk premia associated with the payoffs. In an application to the market for short-maturity European options on the S&P500 index, I obtain important evidence about the pricing of variance and jump risk. First, the variance risk premium is positive during daytime when the hedging frequency is high enough, and negative during night-time. The daytime profits are greater in magnitude than night-time losses from a long position. Compensation for big risk is mostly available overnight as well. Investors are significantly rewarded for taking on big risk mostly *after* such adverse events occur in the financial markets.

WORKING PAPERS

Modelling divergence swap rates in incomplete option markets [in-progress]

Arbitrage free dispersion with A. Sali and F. Trojani (2015)

Realized divergence with A. Noori Khajavi, and F. Trojani [in-progress]

Option returns and risk premia: a direct approach with A. Sali and F. Trojani (2015)

An option implied non-parametric approach for filtering stochastic volatility with A. Sali (2012)

REFEREE

Journal of Banking and Finance

EXTRACURRICULAR COURSES

Workshop in Modern Scientific Computing November 2016
University of Geneva Geneva, Switzerland
with prof. Simon Scheidegger (Uni Zurich)

SoFiE Summer School 2014 July 2014
Department of Statistics at Harvard University Cambridge, USA
"The Econometrics of Option Pricing" with prof. Eric Renault (Brown) and prof. Patrick Gagliardini (USI Lugano).

SoFiE Summer School 2013 July 2013
Oxford-Man Institute at University of Oxford Oxford, UK
"Financial Forecasting" with prof. Andrew Patton (Duke) and prof. Allan Timmermann (UCSD).

Asset Pricing in Continuous Time June 2013
University of Lugano Lugano, Switzerland
with prof. Paul Schneider (USI Lugano)

High-Frequency Econometrics December 2012
University of Lugano Lugano, Switzerland
with prof. Viktor Todorov (Kellogg)

Econometrics of Macro-Finance June 2012
University of Lugano Lugano, Switzerland
with prof. Alain Monfort (CREST)

TEACHING EXPERIENCE

Financial Econometrics October 2014 – February 2015, Fall 2016
Università della Svizzera italiana Lugano, Switzerland
Master in Economics and Master in Finance programs. Linear asset pricing models. GARCH models.

Probability and Stochastic Processes for Finance October 2011 – January 2014
Università della Svizzera italiana Lugano, Switzerland
PhD in Finance. Measure-theoretic probability. Limit theorems in general settings. Discrete and continuous-time stochastic processes.

Probability and Finance October 2011 – February 2015
Università della Svizzera italiana Lugano, Switzerland
Master in Finance. Fundamentals of probability, the binomial asset pricing model.

Econometrics September 2007 – January 2010
Warsaw School of Economics Warszawa, Poland
Bachelor, all majors. Fundamentals of econometric inference and operations research.

WORK EXPERIENCE

Consultant: Data Science Since September 2016
Alphacruncher AG Lugano, Switzerland
Analysis of unstructured or weakly-structured data. Data modelling. Development of analytical tools for education and investment management.

Senior Economist February 2007/August 2010
Dom Maklerski AFS Warszawa, Poland
FX market risk modelling and analysis, FX and macroeconomic forecasting. Risk assessment for FX derivative portfolios. Software development (pricing, accounting). Project team leader in the following fields: controlling, software development, risk management policy development, hedging strategy development.

Assistant to Commercial Attaché in Poland July 2005/August 2005
Agence Wallonne à l'Éxportation Warszawa, Poland
Market analysis, reporting in French for Belgian enterprises wishing to enter the Polish market.

COMMERCIAL SOFTWARE

Denderski, P., Orłowski, P. and Bobrowski, R. (2011): `AFS RM 3.0`, Environment for foreign ex-

change cash flow monitoring and interest rate risk management, risk assessment and accounting, FX and IR derivatives pricing, C++ and Python library implementation. Developed for Dom Maklerski AFS (Warsaw, Poland). `http://www.afsrm.pl/`

PROGRAMMING and SOFTWARE

R: very proficient
standalone libraries for Finance/Econometrics / **C++** integration / parallel computing / data science / Shiny web development;

C++: proficient
object-oriented paradigm / standalone libraries for Finance/Econometrics / some experience with MPI/OpenMP

HPC: familiar with work-flow on large computing clusters

SQL: proficient
ability to work with very large data sets

MATLAB: proficient

Python: working knowledge
commercial software for accounting

LANGUAGES

English (C2), French (C1), Italian (C1), German (B1), Polish (mother tongue)