Magdalena Tywoniuk

Home Address: Avenue de Bethusy 26
1005 Lausanne
Switzerland

Mobile: +41 78 825 51 10
Email: Magdalena.Tywoniuk@unige.ch
Birthdate: 28.06.1984
Nationality: Polish, Canadian
Work Permit: Swiss Permit B

LANGUAGES

English: Native
Polish: Native
French: B2/C1 (TCF)
Italian: A2/B1
German: A2

PROFESSIONAL/ACADEMIC PROFILE

Final year doctoral candidate (defending 2021) at the Swiss Finance Institute Doctoral Program (UNIGE, UNIL & EPFL) with a thesis focus on Networks, Behavior and Financial Stability. Completed Joint MSc. in High Energy Theoretical Physics from Ecole Polytechnique (Paris) and ETH (Zurich).

Dynamic, creative candidate able to identify unique research questions, synthesize disparate solution techniques and provide novel, practical solutions. My distinctive background, adaptability, and non-traditional thinking permits an eye for previously unexplored problems.

Strong quantitative skills, with extensive studies in all aspects of finance, physics and mathematics. Specialized experience with OTC markets, benchmarks, and networks.

Modeling and programming experience in a variety of programming languages and software.

Extensive instruction skills from teaching at all levels: professional (banking), graduate (PhD & MSc.), and undergraduate level. Extensive tutoring at all levels, and service experience.

Well-rounded art, business and science background in marketing, economics, chemistry, biology, psychology. Particular interest and studies in fine art, oenology and luxury markets.

EDUCATION

10/2015 – 07/2021 **University of Geneva, Geneva Finance Research Institute,**
Degree: Doctorate, PhD.

- PhD-Thesis "*Essays on Network Effects, Financial Contagion and Behavior in Over-the-Counter Markets*" (Dr. Rajna Gibson-Brandon)

09/2014 – 09/2015 **Swiss Finance Institute Doctoral Program Joint University of Lausanne and EPFL,** Qualifying year (Pass).

09/2012 – 08/2014 **Joint Program High Energy Physics, ETH Zurich & Ecole Polytechnique,**
Degree: Masters, MSc.

- MSc-Thesis "*QCD corrections at NLO and NNLO for top-antitop-quark production at the LHC-CERN*" (Dr. Aude Gehrmann-De Ridder, ETHZ)
- Semester work in String Theory (Dr. Matthias Gaberdiel, ETHZ)

09/2009 – 06/2012 **University of Windsor**, **Honors Fast-Track Physics & High Technology,**
Degree: Bachelor, BSc. with distinction.
Minor: Mathematics.
Specialization: Chemistry.

- Thesis "*Interaction anomalies of gold nanoparticles in a cluster due to interparticle coupling of plasmons*" – application for lung-cancer sensing device (Dr. Chitra Rangan)
- Research on Terahertz Photonics in Condensed Matter Physics (Dr. Eugene Kim)

2004 – 2009 Partial Studies in Musical Theatre (AMDA, NYC), Fashion Design (Ryerson University, Toronto), and Business & Commerce (Athabasca University).

EMPLOYMENT HISTORY

10/2015 – 07/2021 **University of Geneva,** Master of Wealth Management, Teaching Assistant

- Teaching Assistant for Hedge Funds Course

10/2016 – 01/2020 **Swiss Finance Institute,** Banking Certification, Instructor

- Live and Webinar Instruction for Private Bank Instruction for SAQ certification for Wealth Managers.

09/2013 – 04/2014 **University of Windsor,** Dept. of Physics, Sessional Instructor

- Lead graduate seminar in "Field Theory"
- Instructor for undergraduate course in "Introduction to Theoretical Models"

2012-2013 **University of Windsor,** Office of Research & Innovation, Service Staff
- Process grant application funding approval and disbursement.
- Maintain accurate funding records and database.

2008-2013 Various engagements in Library, Hospitality, Tutoring, and Biotechnology

OTHER EXPERIENCE

Research Experience

2013 - 2014 **University of Windsor,** Dr. Gordon Drake, Physics Department
- Research with on Theoretical Atomic Physics

2010 - 2011 **University of Windsor,** Dr. Chitra Rangan, Physics Department
- Research on gold nanoparticles for lung-cancer diagnostics.

2009 – 2011 **University of Windsor,** Dr. Eugene Kim, Physics Department
- Research with on Terahetz Photonics
- AdS/CFT applications to Cosmology

KEY SKILLS

Finance: Theoretical and Empirical Asset Pricing, Game Theory, Corporate and International Finance, Econometrics.

Finance Special Courses: Chaos Theory in Finance, OTC Markets, Benchmarks, Networks, Monetary Policy.

Software & Programming: MATLAB, Python, R, STATA, Gephi, Mathematica, Maple, C, Parallel Programming & Super-Computers, Latex, Fortran.

Mathematics: Stochastic, Multivariate and Vector Calculus, Abstract Algebra, Fourier Series, Complex Variables.

Physics: String theory, Supersymmetry, Quantum Field theory, Astro-particle, Sub-atomic and Condensed Matter Physics.

Business: Microeconomics, Macroeconomics, Marketing, International Marketing, Management, Accounting.

Science: Biology, Chemistry (Physical & Organic), Spectroscopy, Circuits, Computer Hardware.

Art: Art History, Modern Art, Principles of Design, History of Fashion, Fashion Business, Patternmaking, Painting Technique.

PERFORMANCE & ACHIEVEMENTS

Achievements/Awards:

- Full Scholarship for Advanced Gerzensee Course with Prof. Darrell Duffie.
- Full scholarship for MIT Financial Markets 2017 Summer Course.
- Full scholarship for Qualifying Year of doctoral program.
- Full scholarship for Joint Master program.
- Achievement bursaries for each year of undergraduate studies.
- Awards for Community Leadership and Academic Achievement.
- Undergraduate Thesis submitted for publication in June 2011.

Conferences:

- Runner-up, Best paper award at CEF 2018 Conference (prize).
- Single student presenter, with all-expense paid at Chapman University Money and Finance conference, 08/2020.
- AFA Poster acceptance for 01/2019.
- AFA Travel bursary for 01/2018
- Various conference presentations: MMF 2018 (LSE), Bachelier Congress 2018, Mathematics of Finance 2017.

Outreach:

- University of Windsor EXAM-Aid program tutor for Linear Algebra and Calculus.
- Ryerson University universal tutor for students on academic probation.
- Private Tutor for Quantum Mechanics, Chemistry, and Molecular Theory.
- Private tutor for grade school and high school students in mathematics.
- Private tutor at undergraduate level in programming, chemistry and biology.

INTERESTS

Finance: Networks, Contagion, OTC markets, Behavior, Fintech, Non-traditional asset classes.
Other: Wine, fine art, culinary - techniques and industries.
Sport: Ski, Ballet, Hiking.