Guilherme Ferreira Pelúcio Salomé

CONTACT INFORMATION	E-mail: guilhermesalome@gmail.com Mobile: +1 (984) 329-2519 Website: guilhermesalome.com

PROFESSIONAL INTERESTS

Empirical Finance, Econometrics, Data Science

EDUCATION

DUKE University — North Carolina, USA
Ph.D. in Economics — **2015 - 2020 (Expected)**
Courses: Econometrics (Regression, Panel, Inference, Time Series), Nonparametric Estimation (Kernel, Sieves), High-Frequency Financial Econometrics, Asset Pricing, Computational Methods
Advisor: Dr. George Tauchen

IMPA - Institute of Pure and Applied Math — Rio de Janeiro, Brazil
M.S. in Mathematics — **2012 - 2014**
Courses: Real Analysis, Linear Algebra, Optimization, Numerical Analysis, Mathematical Economics
Advisor: Dr. Aloísio Araújo

Insper - Institute of Education and Research — São Paulo, Brazil
B.S. in Economics — **2008 - 2011**
GPA: 9.01/10 ($3rd$ among 60) - Graduated with Honors
Advisor: Dr. José Heleno Faro

RELEVANT EXPERIENCES

DUKE University — North Carolina, USA
Lecturer — **2018 - 2019**
Responsible for developing lecture materials and exams, teaching and managing a teaching assistant. I lectured graduate students on the following topics (all materials are available online):
- Empirical Methods in High-Frequency Financial Econometrics
- Python for Economists
- Matlab for Economists

Teaching Assistant — **2016 - 2017**
Responsible for holding lab sessions, office hours and grading. I worked as an assistant for the following graduate and undergraduate courses:
- Empirical Methods in High-Frequency Financial Econometrics (Dr. George Tauchen)
- Options and Futures (Dr. George Tauchen)
- Introduction to Econometrics (Dr. James Roberts)

Insper - Institute of Education and Research — São Paulo, Brazil
Teaching Assistant — **2015**
Responsible for holding lab sessions, office hours and grading for the course: Mathematics for Economists (Dr. José Heleno Faro).

Valora   São Paulo, SP Brazil
Internship   **2011**
Responsible for building and updating project valuation models based on discussions
with clients.

OTHER
RELEVANT
EXPERIENCES

Courses on Machine Learning: Duke (Fuqua, 2018), Stanford University (Coursera, 2013), Caltech (edx.org, 2013)
Research Presentation: 4th International Workshop in Financial Econometrics
Workshops: SoFiE (2018), SoFiE (2019)

SKILLS

Languages: Portuguese (Native), English (Fluent, TOEFL 118/120), Spanish (Basic)
Programming: Python (advanced; experience with numpy, pandas, tensorflow, and
parallel computing), Matlab (advanced), C++ and R (beginner), SQL (beginner)
Web Development: HTML, CSS, Javascript (link to certificate)
Software: Emacs, Git, Adobe Illustrator

RESEARCH

Working Papers

Volume, Volatility, and Disagreement in Market Index Options
We provide new empirical evidence of disagreement between investors in the S&P 500
options market. Our findings rely on high-frequency intraday price and volume data
for options on the S&P 500 index. We find that investors have higher disagreement
about rare events and about events farther into the future, as opposed to lower disagreement about common events or events in the near future.

Understanding Large Moves in Risk-Neutral Moments
We recover higher order moments of the S&P 500 index at the high-frequency. These
moments are computed using model-free measures and depend on high-frequency observations of options data. Consistent with a model where there are sudden changes
in the probability of price jumps, we find evidence of large and frequent moves in the
risk-neutral moments, far in excess of the number of jumps in the market index.

Implied Volatility and Market Jumps
We analyze the relationship between market jumps and the implied volatility in the
options market. We find a negative correlation between jumps in the market index
and changes in the implied volatility, which contradicts the assumptions of many well
known options pricing models.

HONORS &
AWARDS

Duke University Scholarship	**2016-2020**
Duke University Fellowship	**2015-2016**
CNPq Fellowship for Master's Studies	**2012-2014**
IMPA Fellowship for Summer Studies	**2012**
Insper Scholarship for Advanced Studies Program	**2010-2011**
Insper Financial Support	**2008-2011**
Insper - Graduated with Honor	**2011**