Dr. Antonios Meimaris

Teaching Associate - Monash University, Australia
Data Scientist - Newgate Research, Australia

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Education

PhD in Mathematics, *Monash University*, Melbourne, Australia — 2020
Coursework passed with High Distinction (highest achievable grade)
Fully funded by Monash University (Fees and Stipend)

MRes in Decision Making Under Risk & Uncertainty, *University of Liverpool*, Liverpool, UK — 2016
Awarded with Distinction (highest achievable grade)
Fully funded by EPRSC Doctoral Training Grant (Fees and Stipend)

BSc (Hons) in Pure & Applied Mathematics, *University of Athens*, Athens, Greece — 2015
Specializations: (i) Computational Mathematics & (ii) Statistics and Operations Research

Publications

- Konstantinos Liaskos, Athanasios Pantelous, Ioannis Kougioumtzoglou, **Antonios Meimaris** and Antonina Pirrotta, "Implicit analytic solutions for a nonlinear fractional partial differential beam equation", Communications in Nonlinear Science and Numerical Simulation 83, (2020): 105219: 1-19.
- **Antonios Meimaris**, Ioannis Kougioumtzoglou and Athanasios Pantelous, "Closed-form approximate solutions for a class of coupled nonlinear stochastic differential equations", Applied Mathematics and Computation, (2019): 124669: 1-18.
- **Antonios Meimaris**, Ioannis Kougioumtzoglou, Athanasios Pantelous and Antonina Pirrotta, "An approximate technique for determining in closed form the response transition probability density function of diverse nonlinear/hysteretic oscillators", Nonlinear Dynamics, (2019): 1-15.
- **Antonios Meimaris**, Ioannis Kougioumtzoglou and Athanasios Pantelous, "Approximate transition probability density functions for a class of coupled nonlinear stochastic differential equations", 8^{th} CSM conference proceedings, (2019): 346-351.
- Konstantinos Liaskos, Athanasios Pantelous, Ioannis Kougioumtzoglou and **Antonios Meimaris**, "Implicit analytic solutions for the linear stochastic partial differential beam equation with fractional derivative terms", Systems & Control Letters 121, (2018): 38-49.
- **Antonios Meimaris**, Ioannis Kougioumtzoglou and Athanasios Pantelous, "Approximate analytical solutions for a class of nonlinear stochastic differential equations", European Journal of Applied Mathematics, (2018): 1-17.
- **Antonios Meimaris**, Ioannis Kougioumtzoglou and Athanasios Pantelous, "A closed form approximation and error quantification for the response transition probability density function of a class of stochastic differential equations", Probabilistic Engineering Mechanics 54 (2018): 87-94.
- **Antonios Meimaris**, Ioannis Kougioumtzoglou and Athanasios Pantelous, "Some observations on the approximations of the Wiener path integral technique", Meccanica dei Materiali e delle Strutture Vol. VI, no.1, (2016): 195-202.

Manuscripts In preparation

- **Antonios Meimaris**, Vasileios Kontosakos, Athanasios Pantelous and Ioannis Kougioumtzoglou, "Approximate closed-form solutions for continuous time derivative pricing", (2020).
- Konstantinos Liaskos, **Antonios Meimaris**, Athanasios Pantelous and Ioannis Kougioumtzoglou, "Analytic solution in implicit form for the large deflection of a nonlinear beam with fractional derivative terms", (2020).
- Konstantinos Liaskos, Athanasios Pantelous, Ioannis Kougioumtzoglou and **Antonios Meimaris**, "Implicit analytic solutions for the stochastic linear partial differential beam equation with fractional derivative terms", (2020).

Short Term Academic Appointments

CE Lecturer - University of Liverpool, Liverpool, United Kingdom November, 2017
Lecture Topic: *History of Probability & Randomness*

Visiting Scholar - Columbia University, New York, USA May - June, 2017

Visiting Scholar - Columbia University, New York, USA November - December, 2016

Teaching Experience

Teaching Associate - Monash University, Melbourne, Australia 2018 - present
Responsible with teaching, marking and other administrative duties for the units:

ETC2430 - Actuarial statistics
ETC3530 - Contingencies in insurance and pensions
ETC4130 - Asset liability management
ETC3420 - Applied insurance methods
ETC5343 - Financial mathematics under uncertainty

Teaching Assistant - University of Liverpool, Liverpool, United Kingdom 2016 - 2018
Responsible with teaching, marking and other administrative duties for the units:

MATH480 - Probability Essentials for Financial Calculus (Stochastic Calculus)
MATH367 - Networks in Theory and Practice (Graph Theory)

Teaching Assistant - University of Athens, Athens, Greece 2014 - 2015
Responsible with teaching, marking and other administrative duties for the units:

MATH141 - Computer Science I (Algorithms with MATLAB applications)
MATH101 - Calculus I (Real Analysis)

Teacher - Varvakios Pilot School, Athens, Greece February - April 2015
Organized by the University of Athens, Athens, Greece. Responsible with teaching a number of large classes, organizing courses and had the opportunity to discuss with more experienced teachers about teaching approaches.

Other Work Experience & Skills

Data Scientist - Newgate Research, Melbourne, Australia 2020 - present
In charge of interpreting data in order to draw conclusions for strategy implementation, using statistical techniques for hypothesis testing. Responsible with visualizing data and presenting conclusions to team.

Proprietary Quantitative Trader - Snap Innovations Australia, Melbourne, Australia 2019 - 2020
Responsible with developing quantitative methods and conducting trades.

Analyst & Facilitator - BARD - Monash University, Melbourne, Australia July - August 2018
Funded by IARPA. Responsible with analyzing problems and transmitting information regarding Bayesian Argumentation via Delphi (BARD) to a variety of backgrounds.

- **Computer Literacy Certificate** - University of Athens, Greece 2014
  Awarded based on the number of Information Technology modules successfully passed. (e.g. Algorithm Development & Analysis, Numerical Analysis and Programming in MATLAB, R and Java)
- **Languages:** English, Greek, Russian

Collaborations & Memberships

The Research Society, Australia 2020 - present

Allianz Global Investors, Munich, Germany 2019 - present

Stochastic Engineering Dynamics Lab, Columbia University, New York, USA 2015 - present

Committees

I participated in the Probabilistic Methods Committee, June, 2019
California Institute of Technology (Caltech), Pasadena, CA, USA

Purpose: to promote and foster research in uncertainty analysis, model validation methods and risk-informed decision-making, and to stimulate its understanding and use in science and engineering applications to benefit society.

Recent Awards

Postgraduate Publications Award, February 2020
including monetary prize ($5,000), for the amount of top tier published research papers during my candidature at Monash University, Melbourne, Australia and the quality of my thesis by publications.

Certificate of Excellence, Certified Peer Reviewer, September 2019
awarded by Elsevier Researcher Academy.

Econometric Game, Finalist Award (Top 10), April 2019
for participating in the final stage of the 2019 Econometric Game, developing stochastic models for CO_2 emissions; organized by the Actuarial Science, Econometrics and Operational Research Management (VSAE), University of Amsterdam, Amsterdam, Netherlands.
*Here I was the captain of the Monash University team.

Teaching Excellence Award (Best Ph.D. Teaching Associate), February 2019
from the Director of Education, Associate Professor Vasilis Sarafidis, including monetary prize, for my teaching at Monash University, Melbourne, Australia.

Teaching Award, December 2018
from the Head of Department, Professor Heather Anderson, including monetary prize, for my teaching at Monash University, Melbourne, Australia, during the academic year 2018.

Monash Graduate Scholarship (MGS) Grant, October 2017
Postgraduate Research Studentship (2018-2021).

Monash International Tuition Scholarship (MITS) Grant, October 2017
Postgraduate International Tuition Studentship (2018-2021).

EPSRC Centre for Doctoral Training (CDT): Award, May 2017
including monetary prize, for a proposed solution to an uncertainty quantification problem (See Page 7).

EPSRC Centre for Doctoral Training (CDT): Studentship Grant (No.: 1654075), July 2015
Principal Investigator & Award Holder (2015-2019).

Conferences & Colloquiums

5th Symposium on Quantitative Finance and Risk Analysis (QFRA 2019) June 2019
Kos Island, Greece; organised by Monash University, Melbourne, Australia
"Approximate closed-form solutions for continuous time derivative pricing"

2019 EMI Conference June 2019
California Institute of Technology (Caltech), Pasadena, CA, USA
"Approximate closed-form solutions for a class of nonlinear stochastic differential equations with applications in engineering dynamics"
*Here I also participated in the Probabilistic Methods Committee.

Monash Business School Doctoral Colloquium November 2018
State Library Victoria, Melbourne, Australia
"Approximate analytical solutions for a class of nonlinear stochastic differential equations"

8^{th} *International Conference On Computational Stochastic Mechanics (CSM 8)* June 2018
Paros, Greece; organised by Rice University, Houston, TX, USA
"Approximate transition probability density functions for a class of coupled nonlinear stochastic differential equations"

2018 EMI Conference June 2018
Massachusetts Institute of Technology (MIT), Boston, MA, USA
"Approximate transition probability density functions for a class of nonlinear stochastic differential equations"

2017 EMI Conference June 2017
San Diego, CA, USA
"Assessing the accuracy of the Wiener Path Integral technique for a class of stochastic differential equations"

2016 EMI International Conference October 2016
University of Lorraine (Université de Lorraine), Metz, France
"Some observations on the approximations of the Wiener path integral technique"
*Here I was a keynote speaker

Annual Showcase Conference September 2016
University of Liverpool, Liverpool, United Kingdom
"Some observations on the approximations of the Wiener path integral technique"
*Here I also presented a poster "Path integral techniques: Applications to financial modelling and options pricing"

2nd Symposium on Quantitative Finance and Risk Analysis (QFRA 2016) June 2016
Rhodes, Greece; organised by University of Liverpool, Liverpool, United Kingdom
"Some observations on the approximations of the Wiener path integral technique"

Professional Development

CDT Easter School 2017
University of Liverpool, Liverpool, United Kingdom April 2017
*Here I was a member of the organizing team

NATCOR: Forecasting and Predictive Analytics
Lancaster University, Lancaster, United Kingdom September 2016

3rd BCN(Barcelona) Summer School on Stochastic Analysis
Centre de Recerca Matemàtica, Bellaterra, Barcelona, Spain June-July 2016

NATCOR: Convex Optimization
University of Edinburgh, Edinburgh, United Kingdom June 2016

MIGSAA graduate course on stochastic pathwise integration and stochastic particle systems
University of Edinburgh, Edinburgh, United Kingdom April 2016

CDT Easter School 2016
University of Liverpool, Liverpool, United Kingdom April 2016

13th International Probabilistic Workshop (IPW2015)
University of Liverpool, Liverpool, United Kingdom November 2015

9th Panhellenic Logic Symposium
National Technical University of Athens, Athens, Greece June 2013

Reviewing Service

Nonlinearity, IOP Publishing & London Mathematical Society

Journal of King Saud University - Science, Elsevier

ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering, American Society of Mechanical Engineers (ASME)

Engineering Optimization, Taylor and Francis Ltd.

AIMS Mathematics, AIMS Press

Mathematics, MDPI AG

Public Talks

A Brief History of Randomness: From divination and gambling to modern Probability Theory & Statistics
168 Lonsdale Street, Melbourne, Australia — March 2020

Other Volunteer Service

Mentor for the "The Tipping Point" program, — 2019 - present
supported by THI Australia.

Captain of the Monash University Econometric Game 2019 team, — 2018 - 2019
Monash University, Melbourne, Australia.

Member of the organizing team of the CDT Easter School 2017, — 2016 - 2017
University of Liverpool, Liverpool, United Kingdom.

Member of the organizing team of the forum of Department of Mathematics, — 2013 - 2019
University of Athens, Athens, Greece.

Member of a number of Mathematics study groups (with a variety of subjects) and organizer of one, as a student at the University of Athens, Athens, Greece. — 2013 - 2015

References available upon request