

# ANTONIOS MEIMARIS

Ph.D. Candidate & Teaching Associate - Monash University, Australia  
Data Scientist - Newgate Research, Australia  
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## EDUCATION

### **Monash University**, Melbourne, Australia

Doctor of Philosophy, **Econometrics & Business Statistics**, *Graduation: July 2020*  
*Fully funded by Monash University (Fees and Stipend)*

- Coursework passed with *High Distinction* (highest achievable grade)
- Specialization: Mathematics

### **University of Liverpool**, Liverpool, United Kingdom

Master by Research, **Decision Making Under Risk & Uncertainty**, 2016  
*Fully funded by EPSRC Doctoral Training Grant (Fees and Stipend)*

- Awarded with *Distinction* (highest achievable grade)
- Highlight: In “Probability Essentials for Financial Calculus” achieved 100/100 mark

### **University of Athens**, Athens, Greece

Diploma, **Mathematics**, 2015

- Directions: Pure & Applied Mathematics
  - Specializations: (i) Computational Mathematics & (ii) Statistics and Operations Research
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## 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 the course, and also had the opportunity to discuss with more experienced teachers about teaching approaches.

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## OTHER WORK EXPERIENCE AND 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.

o **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)

o **Languages:** English, Greek, Russian

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## 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

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## COLLABORATIONS

Allianz Global Investors, Munich, Germany 2019 - present

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

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## 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.

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## 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<sub>2</sub> 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).

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## PUBLICATIONS

### Published & Accepted

- o Konstantinos Liaskos, Athanasios Pantelous, Ioannis Kougiumtzoglou, **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.
- o **Antonios Meimaris**, Ioannis Kougiumtzoglou and Athanasios Pantelous, “Closed-form approximate solutions for a class of coupled nonlinear stochastic differential equations”, Applied Mathematics and Computation, (2019): 124669: 1-18.
- o **Antonios Meimaris**, Ioannis Kougiumtzoglou, 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.
- o **Antonios Meimaris**, Ioannis Kougiumtzoglou and Athanasios Pantelous, “Approximate transition probability density functions for a class of coupled nonlinear stochastic differential equations”, 8<sup>th</sup> CSM conference proceedings, (2019), Accepted.
- o Konstantinos Liaskos, Athanasios Pantelous, Ioannis Kougiumtzoglou 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.
- o **Antonios Meimaris**, Ioannis Kougiumtzoglou and Athanasios Pantelous, “Approximate analytical solutions for a class of nonlinear stochastic differential equations”, European Journal of Applied Mathematics, (2018): 1-17.
- o **Antonios Meimaris**, Ioannis Kougiumtzoglou 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.
- o **Antonios Meimaris**, Ioannis Kougiumtzoglou 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.

### In preparation

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

## Preprints

Antonios Meimaris, “On the additive persistence of a number in base  $p$ ”, (2015).

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## CONFERENCES & COLLOQUIUMS

I have presented in the following events:

*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<sup>th</sup> 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”

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## PUBLIC TALKS

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

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## PROFESSIONAL DEVELOPMENT

I have attended the following events:

<i>CDT Easter School 2017</i> University of Liverpool, Liverpool, United Kingdom *Here I was a member of the organizing team	April 2017
<i>NATCOR: Forecasting and Predictive Analytics</i> Lancaster University, Lancaster, United Kingdom	September 2016
<i>3rd BCN(Barcelona) Summer School on Stochastic Analysis</i> Centre de Recerca Matemàtica, Bellaterra, Barcelona, Spain	June-July 2016
<i>NATCOR: Convex Optimization</i> University of Edinburgh, Edinburgh, United Kingdom	June 2016
<i>MIGSAA graduate course on stochastic pathwise integration and stochastic particle systems</i> University of Edinburgh, Edinburgh, United Kingdom	April 2016
<i>CDT Easter School 2016</i> University of Liverpool, Liverpool, United Kingdom	April 2016
<i>13th International Probabilistic Workshop (IPW2015)</i> University of Liverpool, Liverpool, United Kingdom	November 2015
<i>9th Panhellenic Logic Symposium</i> National Technical University of Athens, Athens, Greece	June 2013

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## VOLUNTEER SERVICE

Captain of the Monash University Econometric Game 2019 team, Monash University, Melbourne, Australia.	2018 - 2019
Member of the organizing team of the CDT Easter School 2017, University of Liverpool, Liverpool, United Kingdom.	2016 - 2017
Member of the organizing team of the forum of Department of Mathematics, University of Athens, Athens, Greece.	2013 - present
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

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*References available upon request*