

# ANTONIOS MEIMARIS

Ph.D. Candidate & Teaching Associate - Monash University

Room E773, Menzies Building, Clayton Campus, VIC 3800, Australia

☎Phone: +61 3 9905 2309    ✉Email: [Antonios.Meimaris@monash.edu](mailto:Antonios.Meimaris@monash.edu)    🌐Web: [ameimaris.github.io](http://ameimaris.github.io)

---

## EDUCATION

### Monash University, Melbourne, Australia

Doctor of Philosophy, **Econometrics & Business Statistics**, *Current; Ready to Submit*

*Fully funded by Monash University (Fees and Stipend)*

- Coursework passed with *High Distinction* (highest achievable grade)
- Thesis: *Closed form path integral based approximate solutions of stochastic differential equations*
- Advisors: Athanasios A. Pantelous, Ph.D (Monash University, Australia),  
Dan Zhu, Ph.D (Monash University, Australia) and  
Ioannis A. Kougiumtzoglou, Ph.D (Columbia University, USA)

### University of Liverpool, Liverpool, United Kingdom

Doctor of Philosophy, **Mathematics**, *Started: October 2016, Cont. at Monash Univeristy*

*Fully funded by EPSRC Doctoral Training Grant (Fees and Stipend)*

- Thesis Topic: *Path integral techniques to stochastic modelling and options pricing*
- Advisors: Athanasios A. Pantelous, Ph.D (University of Liverpool, UK) and  
Ioannis A. Kougiumtzoglou, Ph.D (Columbia University, USA)

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
- Topic: *Some observations on the approximations of the Wiener path integral technique*
- Advisors: Athanasios A. Pantelous, Ph.D (University of Liverpool, UK) and  
Ioannis A. Kougiumtzoglou, Ph.D (Columbia University, USA)

### University of Athens, Athens, Greece

Diploma, **Mathematics**, 2015

- *Four-year program*
  - Directions: Pure & Applied Mathematics
  - Specializations: Computational Mathematics  
Statistics and Operations Research
- 

## 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

**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.

---

## OTHER WORK EXPERIENCE AND SKILLS

**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

---

## 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

---

## COLLABORATIONS

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.

---

## AWARDS

**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.

<b>Teaching Excellence Award (Best Ph.D. Teaching Associate),</b>	February 2019
from the Director of Education, Associate Professor Vasilis Sarafidis, including monetary prize, for my teaching at Monash University, Melbourne, Australia.	
<b>Teaching Award,</b>	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.	
<b>Monash Graduate Scholarship (MGS) Grant,</b>	October 2017
Postgraduate Research Studentship (2018-2021).	
<b>Monash International Tuition Scholarship (MITS) Grant,</b>	October 2017
Postgraduate International Tuition Studentship (2018-2021).	
<b>EPSRC Centre for Doctoral Training (CDT): Award,</b>	May 2017
including monetary prize, for a proposed solution to an uncertainty quantification problem (See <a href="#">Page 7</a> ).	
<b>EPSRC Centre for Doctoral Training (CDT): Studentship Grant,</b>	July 2015
Postgraduate Research Studentship (2015-2019).	

---

## PUBLICATIONS

### Published & Accepted

- o **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), Accepted.
- o **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.
- o **Antonios Meimaris**, Ioannis Kougioumtzoglou 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 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.
- o **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.
- o **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.
- o **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.

### In preparation

- o **Antonios Meimaris**, Vasileios Kontosakos, Athanasios Pantelous and Ioannis Kougioumtzoglou, “Approximate closed-form solutions for continuous time derivative pricing”, (2019).
- o 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”, (2019).
- o Konstantinos Liaskos, Athanasios Pantelous, Ioannis Kougioumtzoglou and **Antonios Meimaris**, “Implicit analytic solutions for the stochastic linear partial differential beam equation with fractional derivative terms”, (2019).

### Preprints

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

---

## 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”

---

## PROFESSIONAL DEVELOPMENT

I have attended the following events:

- 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

<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

---

## 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

---

*References available upon request*