1 Personal Information

Name	Athanassios N. Avramidis
Date of Birth	Oct. 26, 1964
Staff Number	1918567

2 Present Appointment

Present post and level	Lecturer
Date of appointment to present post	Oct. 1, 2007
Academic Unit/Division	Mathematics
Faculty/Budgetary Group	Social and Human Sciences

3 Previous Substantive Appointments

3/93-5/97 Senior Consultant, The SABRE Group, Dallas, Texas, USA, and Paris, France.

6/97-6/01 Assistant Professor, School of Operations Research and Industrial Engineering, Cornell University, USA. (Visiting Scholar during 8/2001–7/2002.)

8/02-8/06 Researcher, Department of Computer Science and Operations Research, Université de Montréal, Montréal, Canada. (Visiting Scholar during 9/2006–7/2007.)

4 Qualifications

5/87 BSc in Mechanical Engineering (5-year program),

6/ 8/89 M.Sc. in Industrial Engineering, Purdue University, USA.

8/ 5/93 Ph.D. in Industrial Engineering (major in Operations Research), Purdue University, USA.

7/ 4/94 Successful Completion of “Unix Utilities” Course, CompuEdge Technology, USA

30/ 4/94 Successful Completion of “Intermediate ”‘C”’ Programming”, CompuEdge Technology, USA.

14/10/94 Qualified SAS Software User, SAS Institute, Cary, NC, USA.

31/ 1/97 Cours de Civilisation Francaise de la Sorbonne, Certificat Semestriel de Langue Francaise, Niveau Superieur -A-, Paris, France.

5 Major Honours and Distinctions

1980 Honorable Mention, Mathematics Competition for High School Students, Greek Mathematical Society.

1983-87 Academic Excellence Fellowship, Greek National Fellowship Institute.

1990-92 David Ross Research Fellowship, Purdue Research Foundation.

1993 First Place, George Nicholson Student Paper Competition, Operations Research Society of America.

24/5/00 Outstanding Educator, for "having most influenced" Jorge Iragorri, Merrill Presidential Scholar at Cornell University.

2009 INFORMS Simulation Society Outstanding Simulation Publication Award.

6 Teaching

a) Teaching Responsibilities for the 3 Most Recent Academic Years

Year 2012/13 (On Study Leave During Spring Term)

Unit	MATH2013	MATH6004
Degree Title	BSc Mathematics	MSc in OR/ORF
Students	UG	PG
Year of Study	2	MSc
Numbers	52	19
Contact Hours Overall My contribution	 48 17	 53 20
Teaching and Assessment Responsibilities	Lectures, Computer Labs Examination: setting, marking, feedback 1 Assignment: setting, marking, feedback	same same same for 2 assignments
Mean Course Rating (out of 5): Mean Lecturer Rating (for me):	4.1 4.0	4.6 4.3

Year 2011/12

Unit	MATH2013	MATH3013	MATH6004
Degree Title	BSc Mathematics	BSc Mathematics	MSc in OR/ORF
Students	UG	UG	PG
Year of Study	2	3	MSc
Numbers	52	25	45
Contact Hours Overall My contribution	 48 17	 48 48	 53 20
Teaching and Assessment Responsibilities	Lectures, Computer Labs Examination: setting, marking, feedback 1 Assignment: setting, marking, feedback	same same same	same same same for 2 assignments
Mean Course Rating: Mean Lecturer Rating (for me):	3.7 3.6	3.7 4.2	4.3 4.4

Year 2010/11

Unit	MATH2013	MATH3013	MATH6004
Degree Title	BSc Mathematics	BSc Mathematics	MSc in OR/ORF
Students	UG	UG	PG
Year of Study	2	3	MSc
Numbers	98	32	46
Contact Hours			
Overall	48	48	53
My contribution	17	48	20
Teaching and	Lectures, Computer Labs	same	same
Assessment	Examination: setting,	same	same
Responsibilities	marking, feedback		
	1 Assignment: setting,	same	same for 2 assignments
	marking, feedback		
Mean Course Rating:	3.3	2.5	3.7
Mean Lecturer			
Rating (for me):	3.3	2.6	3.5

In MATH3013, student feedback clearly points to a computer component that is well-received and a theory component that is somewhat problematic.

Year 2009/10

Unit	MATH2013	MATH3013	MATH6004
Degree Title	BSc Mathematics	BSc Mathematics	MSc in OR/ORF
Students	UG	UG	PG
Year of Study	2	3	MSc
Numbers	46	23	51
Contact Hours			
Overall	48	48	53
My contribution	17	48	20
Teaching and	Lectures, Computer Labs	same	same
Assessment	Examination: setting,	same	same
Responsibilities	marking, feedback		
	1 Assignment: setting,	same	same for 2 assignments
	marking, feedback		
Mean Course Rating:	3.55	2.62	3.25
Mean Lecturer			
Rating (for me):	3.31	3.67	3.1

b) Summary of Teaching Responsibilities in the two Academic years prior to a) above

Year 2007/08

Programme/Unit	Mean Course Rating	Mean Lecturer Rating (My contribution)	My Contact Hours
MATH2037 Computer Tools for O.R.	3.16	2.31	12
MATH3013 Simulation and Queues	2.4	2.3	48
MATH6004 Stochastic O.R. Methods	2.85	2.63	26

Comments: This was my first position in UK Higher Education. I lacked appropriate teaching material for all courses, and I began developing them. I also lacked insight into students' background.

Year 2008/09

Programme/Unit	Mean Course Rating	Mean Lecturer Rating (My contribution)	My Contact Hours
MATH2037 Computer Tools for O.R.	4.06	3.25	12
MATH3013 Simulation and Queues	2.25	2.17	48
MATH6004 Stochastic O.R. Methods	3.57	2.43	17

Comments: Continued weaknesses were incomplete teaching material and lack of sufficient insight into students' background.

c) Summary of Significant Personal Achievements in Teaching

- I was accepted to become a Fellow of the Higher Education Academy. My teaching experiences at Southampton provided the main source of evidence that I fulfilled the requirements to become a Fellow.
- The supervision of MSc (summer) projects. These are a significant part of the teaching workload in my research group. List of projects sponsored by external institutions that I supervised (title, sponsor, year):

  1. "Allocation of Resources in Multi-Skilled Contact Centres - A Simulation Based Approach", CACI Ltd, Andover, Hampshire, SP11 8LE, 2008.
  2. "Legion pedestrian simulation sensitivity analysis study", Legion Ltd, London SE1 7TJ, 2008.
  3. "A hybrid Legion-Aimsun model for pedestrian route assignment", Legion Ltd and Transport Simulation Solutions, 2008.
  4. "Simulation study of the material hanfdling process for SIGMA GTDI Assemly Line Process", Ford Motor Company Engineering PTO, 2009.
  5. "Wind modelling for Heathrow approach", National Air Traffic Services, 2009.
  6. "Heathrow Arrival Delay Analysis", NATS (Formerly National Air Traffic Services), 2010.
  7. "Develop a discrete event simulation model to improve the monitoring and management of the elective waiting lists for an Acute Trust", RUH Hospital Bath, 2010.
  8. "Optimal overbooking for the wholesale market for hotel rooms", GTA by Travelport, 2010.
  9. "Referee Bias and Home Advantage in Premiership Football", ATASS Sports, Exeter, Devon EX1 3QF, 2011.

- Developed substantial teaching material and methods for all units; most importantly: (i) SIMUL8 teaching material; (ii) mathematically rigorous notes for MATH3013.
- In the last two years, I achieved good lecturer ratings in MATH6004 while also teaching advanced SIMUL8 computing skills. A key challenge in this unit is that the students' background in Mathematics and computing is very diverse.

7 Postgraduate Supervision (Higher Research Degrees)

a) Number of students

Degree	Current	Completed	Total to Date
PhD	2	0	2

b) Details of the three most recent higher degree students supervised to completion: Nil

8 Research and Scholarship

a) Summary of current research and scholarship

- Methodological research: (i) kernel-based estimation of the density of a conditional expectation; (ii) revenue management with learning of a market factor.
- Application-oriented research: risk modeling of online business communities.

b) Summary of research and scholarship in the previous three years

- Methodological research: constructing discrete distributions with Gaussian-copula dependence and given rank correlation
- As in a).

c) Summary of significant personal achievements in research and scholarship

- Methodological research on stochastic simulation (two papers in *Operations Research*)
- Contributions to the call-center operations literature.
- Analysis of Monte Carlo algorithms in finance (*Management Science* 2006 paper, INFORMS Outstanding Simulation Publication Award).

d) Research grants and contracts

Dates	Award Holders	Funding Body	Title	Value
11/2010-11/2013	Prof Steffen Staab, U. of Koblenz (PI); Prof Joerg Fliege, U. of Southampton (CI); Dr A. Avramidis, U. of Southampton (CI); 8 partner institutions	EU	Risk and Opportunity Management of Huge-Scale Business Community Cooperation	11.3 M Euro; ca. 1.1 M Euro to U. of Southampton; ca. 100 K Euro to School of Mathematics, U. of Southampton

List of all research grants held as PI:

- Cornell Theory Center, "Efficiency Improvement for Pricing American Options With A Stochastic Mesh: Parallel Implementation;" Student supported: Yuriy Zinchenko, 9/99–12/99, $10,800.
- Cornell Theory Center, "Monte Carlo Methods for Pricing American Options," 7/99–8/99, $29,111.
- Cornell Theory Center, "Monte Carlo Methods for Pricing American Options," 7/98–8/98, $27,555.

9 Publications

Journal Papers - Academic Journals

A. N. Avramidis, K. W. Bauer, and J. R. Wilson, "Simulation of Stochastic Activity Networks using Path Control Variates", *Naval Research Logistics* 38 (2), 1991, 183–201.

A. Avramidis and J. R. Wilson, "A Splitting Scheme for Control Variates", *Operations Research Letters* 14 (4), 1993, 187–198.

A. Avramidis and J. R. Wilson, "A Flexible Method for Estimating Inverse Distribution Functions in Simulation Experiments", *ORSA Journal on Computing* 6 (4), 1994, 342–355.

* A. N. Avramidis and J. R. Wilson, "Integrated Variance Reduction Strategies for Simulation", *Operations Research* 44 (2), 1996, 327–346.

* A. N. Avramidis and J. R. Wilson, "Correlation-Induction Techniques for Estimating Quantiles in Simulation Experiments", *Operations Research* 46 (4), 1998, 574–591.

A. N. Avramidis, K. J. Healy, and R. Uzsoy, "Control of a Batch-Processing Machine: A Computational Approach", *International Journal of Production Research* 36 (11), 1998, 3167–3181.

A. N. Avramidis and H. Matzinger, "Convergence of the Stochastic Mesh Estimator for Pricing Bermudan Options", *The Journal of Computational Finance* 7 (4), 2004, 73–91.

* A. N. Avramidis, A. Deslauriers, and P. L'Ecuyer, "Modeling Daily Arrivals to a Telephone Call Center", *Management Science* 50 (7), 2004, 896–908.

* A. N. Avramidis and P. L'Ecuyer, "Efficient Monte Carlo and Quasi-Monte Carlo Option Pricing under the Variance-Gamma Model", *Management Science* 52 (12), 2006, 1930–1944.

A. Deslauriers, P. L'Ecuyer, J. Pichitlamken, A. Ingolfsson, and A. N. Avramidis, "Markov Chain Models of a Telephone Call Center with Call Blending", *Computers and Operations Research* 34 (6), 2007, 1616–1645.

N. Channouf, P. L'Ecuyer, A. Ingolfsson, and A. N. Avramidis, "The Application of Forecasting Techniques to Modeling Emergency Medical System Calls in Calgary, Alberta", *Health Care Management Science* 10 (1), 2007, 25–45.

A. N. Avramidis, W. Chan, and P. L'Ecuyer, "Staffing Multi-Skill Call centers via Search Methods and a Performance Approximation", *IIE Transactions* 41 (6), 2009, 483–497.

A. N. Avramidis, N. Channouf, and P. L'Ecuyer, "Efficient Correlation Matching for Fitting Discrete Multivariate Distributions with Arbitrary Marginals and Normal-Copula Dependence", *INFORMS Journal on Computing* 21 (1), 2009, 88–106.

A. N. Avramidis, W. Chan, M. Gendreau, P. L'Ecuyer, and O. Pisacane, "Optimizing Daily Agent Scheduling in a Multiskill Call Center", *European Journal of Operational Research* 200 (3), 2010, 822–832.

A. N. Avramidis, Constructing Discrete Unbounded Distributions with Gaussian-Copula Dependence and Given Rank Correlation, to appear in *INFORMS Journal on Computing.*

Conference Contributions - Refereed

1. A. Avramidis and J. R. Wilson, "A Flexible Method for Estimating Inverse Distribution Functions in Simulation Experiments", *Proceedings of the 1989 Winter Simulation Conference*, 1989, 428–436.
2. B. W. Schmeiser, T. N. Avramidis, and S. Hashem, "Overlapping Batch Statistics", *Proceedings of the 1990 Winter Simulation Conference*, 1990, 395–398.
3. T. N. Avramidis and J. R. Wilson, "Control Variates for Stochastic Network Simulation", *Proceedings of the 1990 Winter Simulation Conference*, 1990, 323–332.
4. A. N. Avramidis, "Variance Reduction for Quantile Estimation via Correlation Induction", *Proceedings of the 1992 Winter Simulation Conference*, 1992, 572–576.
5. A. N. Avramidis and J. R. Wilson, "Integrated Variance Reduction Strategies", *Proceedings of the 1993 Winter Simulation Conference*, 1993, 445–454.
6. A. Avramidis and J. R. Wilson, "Correlation-Induction Techniques for Estimating Quantiles in Simulation Experiments", *Proceedings of the 1995 Winter Simulation Conference*, 1995, 268–277.
7. A. N. Avramidis and P. Hyden, "Efficiency Improvements for Pricing American Options with a Stochastic Mesh", *Proceedings of the 1999 Winter Simulation Conference*, 1999, 344–350.
8. A. N. Avramidis and H. Matzinger, "Convergence of the Stochastic Mesh Estimator for Pricing American Options", *Proceedings of the 2002 Winter Simulation Conference*, 2002, 1560–1567.
9. A. N. Avramidis, "Importance Sampling for Multimodal Functions and Application to Pricing Exotic Options", *Proceedings of the 2002 Winter Simulation Conference*, 2002, 1493–1501.
10. A. N. Avramidis, P. L'Ecuyer, and P.-A. Tremblay, "Efficient Simulation of Gamma and Variance-Gamma Processes", *Proceedings of the 2003 Winter Simulation Conference*, 2003, 319–326.
11. J. Pichitlamken, A. Deslauriers, P. L'Ecuyer, and A. N. Avramidis, "Modeling and Simulation of a Telephone Call Center", *Proceedings of the 2003 Winter Simulation Conference*, 2003, 1805–1812.
12. A. N. Avramidis, "Efficient Pricing of Barrier Options with the Variance-Gamma Model", *Proceedings of the 2004 Winter Simulation Conference*, 2004, 1574–1578.
13. A. N. Avramidis and P. L'Ecuyer, "Modeling and Simulation of Call Centers", *Proceedings of the 2005 Winter Simulation Conference*, 2005, 144–152.
14. A. N. Avramidis, M. Gendreau, P. L'Ecuyer, and O. Pisacane, "Simulation-Based Optimization of Agent Scheduling in Multiskill Call Centers", *Proceedings of the 2007 Industrial Simulation Conference*, 2007, 255–263.
15. A. N. Avramidis, "Fitting Discrete Multivariate Distributions with Unbounded Marginals and Normal-Copula Dependence", *Proceedings of the 2009 Winter Simulation Conference*, 2009, 452–458.
16. A. N. Avramidis, "A Cross-Validation Approach to Bandwidth Selection for a Kernel-Based Estimate of the Density of a Conditional Expectation", *Proceedings of the 2011 Winter Simulation Conference*, 2011, 439–443.

Research Working Papers (Submitted for Publication)

1. A. N. Avramidis, “Revenue Management with Learning of a Market Factor”. Submitted to *European Journal of Operational Research.*

Other Publications - Research

1. T. Avramidis, Y. Zinchenko, T. Coleman, and A. Verma, “Efficiency Improvements for Pricing American Options with a Stochastic Mesh: Parallel Implementation”, *Financial Engineering News* 19, December 2000.

Appearances in professional conferences or seminars without written proceedings

1. A. N. Avramidis, “Constructing Discrete Multivariate Distributions with Unbounded Marginals and Normal-Copula Dependence”, *ALIO-INFORMS Joint International Meeting*, Buenos Aires, Argentina, June 2010.
2. W. Chan, A. N. Avramidis, M. Gendreau, P. L’Ecuyer, and O. Pisacane, “Optimizing Daily Agent Scheduling in a Multiskill Call Center”, *INFORMS Applied Probability Workshop*, Cornell University, Ithaca, New York, USA, July 2009.
3. W. Chan, A. N. Avramidis, M. Gendreau, P. L’Ecuyer, and O. Pisacane, “Optimizing Daily Agent Scheduling in a Multiskill Call Center”, *Optimization Days 2009*, Montreal, May 2009.
4. O. Pisacane, A. N. Avramidis, M. Gendreau, and P. L’Ecuyer, “Agent Scheduling in a Multi-skill Call Center”, *Canadian Operational Research Society and Optimization Days 2008 Joint Conference*, Quebec City, Canada, May 2008.
5. N. Channouf, P. L’Ecuyer, and T. Avramidis, “Forecasting Models for Daily and Intraday Arrivals in a Call Center”, *Canadian Operational Research Society and Optimization Days 2008 Joint Conference*, Quebec City, Canada, May 2008.
6. W. Chan, A. N. Avramidis, and P. L’Ecuyer, “Staffing Algorithms for Multi-skill Call Centers”, *INFORMS Annual Meeting*, Seattle, USA, Nov. 2007.
7. A. N. Avramidis, “Efficient Monte-Carlo Option-Pricing with the Variance-Gamma Model”, and “Modeling Daily Arrivals to a Telephone Call Center”, School of Mathematics, University of Southampton, United Kingdom, May 2007.
8. N. Channouf, P. L’Ecuyer, and T. Avramidis, “Models of Arrival Processes in a Call Center”, *Optimization Days 2007*, Montréal, Canada, May 2007.
9. T. Avramidis, M. Gendreau, P. L’Ecuyer, and O. Pisacane, “Simulation-Based Optimization of Agent Scheduling in Multiskill Call Centers”, *Optimization Days 2007*, Montréal, Canada, May 2007.
10. W. Chan, T. Avramidis, and P. L’Ecuyer, “Single Period Staffing for Multi-skill Call Centers”, *Optimization Days 2007*, Montréal, Canada, May 2007.
11. A. N. Avramidis, “Staffing in Multi-Skill Call Centers”, *Workshop on Call Centers*, Montréal, Canada, May 2006.
12. O. Pisacane, A. N. Avramidis, W. Chan, M. Gendreau, and P. L’Ecuyer, “Scheduling for Multi-Skill Call Centers”, *Canadian Operational Research Society and Optimization Days 2006 Joint Conference*, Montréal, Canada, May 2006.

13. A. N. Avramidis, W. Chan, and P. L'Ecuyer, "Méthodes de Recherche pour l'Affectation du Personnel Polyvalent dans un Centre d' Appels", *Canadian Operational Research Society and Optimization Days 2006 Joint Conference*, Montréal, Canada, May 2006.
14. A. N. Avramidis, W. Chan, and P. L'Ecuyer, "Staffing and Scheduling in Multiskill Call Centers", *EURO Working Group on Stochastic Modeling*, Amsterdam, Netherlands, April 2006.
15. P. L'Ecuyer and A. N. Avramidis, "Efficient Monte Carlo and Quasi-Monte Carlo Option Pricing under the Variance-Gamma Model", invited presentation, *International Conference on Financial Engineering*, Gainesville, Florida, March 2006.
16. 31 appearances prior to those above.

Citations

As of 30 April 2013: Cited 253 times in *Thomson Reuters' Web of Science*; cited 238 times when self-citations are excluded.

10 Contributions to the University

a) School of Mathematics

1. Supervisor and marker of 4-5 MSc projects per year since 2007/08.
2. Personal tutor to about 7 students per each of 3 undergraduate years and the MSc year.
3. Coordinator of the BSc Programmes combining Mathematics with: Economics, Finance; Operational Research; Management Science; and MORSE. Since 2011/12. Contribution: Advising students on programmes of study and other coordination as necessary (eg timetabling).
4. Web Coordinator, OR Group. Since 2008/09. Contribution: keeping web-page content current.
5. Organizer of Diagnostic Test for new undergraduates. Since 2010/11. Contribution: Invigilation, marking, and production of summary report.
6. Internal Examiner for "A Simulation Methodology for Continuous Systems" by Niels Stchedroff, MPhil 2009.

b, c) Nil.

11 Staff Development and Training

a) Staff development and training activities
Last three years:

Dates	Activity	Hours
17-18/9/2009	Induction Course for Lecturers New to Teaching Mathematics and Statistics in UKHE (run by the Higher Education Academy)	12
Autumn 2010	Postgraduate Certificate in Academic Practice Module 1 Workshops, University of Southampton	16
14-15/10/2010	Workshops: "Methods for Evaluating and Developing Your Teaching"; "Running Really Useful Small Group Sessions"; "Motivating Students and Keeping them Motivated"	12

Significant activities in previous years:

- Seminar on Teaching Practice "Education Half-Day Away", School Of Mathematics, University of Southampton. Half day in the Spring of 2008.
- "Getting Your Academic Career off to a Good Start" by Drs. Richard Felder and Rebecca Brent, a Cornell University workshop for junior faculty. 2 days in the summer of 2000.

b) Nil

c) Major conferences attended over the last three years (including current year) plus any significant participation in previous years

Dates	Title and Nature of Involvement
7-11/4/2008	64th European Study Group with Industry (ESGI 2008); Participant
13-16/12/2009	Winter Simulation Conference; Presenter and Recipient of INFORMS College on Simulation Outstanding Simulation Publication Award
11-14/12/2011	Winter Simulation Conference; Presenter

d, e) Nil.

12 Academic and Professional Activities Outside the University

Last three years:

- Member, INFORMS Simulation Society Outstanding Publication Award Committee, 2010-2012 (Chair in 2011).
- Reviewer for: *ACM Transactions on Modeling and Computer Simulation, The Journal of Computational Finance, Computers and Industrial Engineering, European Journal of Operational Research, INFORMS Journal on Computing, Naval Research Logistics, Operations Research, Operations Research Letters, Proceedings of the 8th International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing (MCQMC 2008), Proceedings of the 2010 Winter Simulation Conference, Production and Operations Management*

Other than the last three years:

- Associate Editor, *Management Science* (Stochastic Models and Simulation), 8/1998–12/2005.
- Reviewer for: *Computational Optimization and Applications, IIE Transactions, IMA Journal of Management Mathematics, Management Science, Manufacturing and Service Operations Management, Transportation Science*
- Session Chair/Organizer:
  - "Simulation Methods in Financial Engineering" Risk Analysis Track, 2003 Winter Simulation Conference.
  - "Design of Simulation Experiments," Introductory Tutorials, 1999 Winter Simulation Conference.
  - "Stochastic Input Modeling," State-of-the-Art Reviews, 1994 Winter Simulation Conference.
- Consultancy for: Zahakos, Giannone & Chiu, Salomon Smith Barney; New York, USA, 1998; SAPTO Industries, Singapore, 1998.

13 Community Activities

Nil

14 Membership of Professional and Learned Societies

- Member, Institute for Operations Research and the Management Sciences (INFORMS).
- Fellow of the Higher Education Academy, UK (subject to administrative details).