Curriculum Vitae — Adriana Ocejo Monge

Contact information

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Appointment

Lecturer in Mathematics, Universidad de Sonora, Mexico
(August 2009 - June 2010).

Education

University of Warwick

- Ph.D. in Statistics (October 2010- December 2013 (expected))
  Supervisors: Profr. Saul Jacka, and Dr. Sigurd Assing
- Postgraduate Award: Teaching & Learning in Higher Education
  (February 2013-)

Universidad de Sonora

- M.Sc. Mathematics (August 2007- June 2009).

  Thesis: American option pricing as a free-boundary problem.
- B.Sc. Mathematics (August 2003- May 2007)

  Thesis: The Henstock-Kurzweil integral and the Fundamental Theorem of Calculus (in Spanish).

Universidad del Valle de México, Laureate International Universities.

- Diploma in Teaching and Learning Methodologies (September 2009 - March 2010).
  Duration: 88 hours.

Research interests

My research interests lie in the broad area of Probability Theory, particularly but not exclusively, in:

Stochastic Processes: stochastic calculus, stochastic differential equations, Markov processes, Martingale theory.

Mathematical Finance: option pricing, stochastic volatility models.

Stochastic Control: optimal stopping, controlled diffusion processes, stochastic games.

Papers

S. Assing, S.D. Jacka and A. Ocejo, *Monotonicity of the value function for a two-dimensional optimal stopping problem.* To appear in Ann. Appl. Probab.

S.D. Jacka and A. Ocejo, *American-type options with parameter uncertainty.* Submitted.

Awards and Grants

University of Warwick, Department of Statistics PhD bursary, 2010-2013.

CONACYT Partial Scholarship for PhD studies, 2010-2013.

CONACYT Scholarship for Master studies, 2007-2009.

Universidad de Sonora, Award of Distinguished Student of the Academic Year 2008/2009.

Universidad de Sonora, Stipend grant for the Exchange Program: University of Arizona-Universidad de Sonora, 2007-2008.

Academic Experience

Talks in Conferences/Workshops

On a zero-sum game of stopping and control (31 July 2013)
36th Conference on Stochastic Processes and their Applications, University of Boulder, Colorado, USA.

Bellman's principle, Ito's formula and the Dirichlet problem: an application to a game of stopping and control (23 April 2013) Young Researchers Meeting, University of Warwick.

Regularity properties in two-dimensional optimal stopping problems and a game against nature (July 2012) 35th Research Students' Conference in Probability and Statistics, University of Southampton.

Regularity of the value function of optimal stopping values (March 2012)
Young Researchers Meeting, University of Warwick.

Optimal stopping problems and applications in finance (March 2009)
Stochastic Control Workshop 2009, Hermosillo, Mexico.

The Henstock-Kurzweil integral and the Fundamental Theorem of Calculus
(October 2008) XLI National Congress of the Mexican Mathematical Society, Valle de Bravo, Mexico.

Talks in seminars/reading groups at Warwick

The three-dimensional Bessel process (May 2013).

Term structure of interest rates (Nov 2012).

Portfolio Selection as a stochastic control problem (Feb 2012).

Comparison of option prices by time-change (May 2011).

Local times (May 2011).

American option pricing in a regime-switching model (Feb 2011).

Characterization of Lévy processes by means of the semigroup and generator (Feb 2011).

Jumps of a Lévy process and Poisson random measures (Jan 2011).

American contingent claims and optimal stopping (Nov 2010).

Lévy processes and the Lévy-Khinctchine formula (Nov 2010).

Poster presentations

Monotonicity of the value function for a two-dimensional optimal stopping problem
(June 2012) Probability, Control and Finance, Columbia University, NY.
(July 2012) Optimal Stopping, Optimal Control and Finance, Warwick.

Regularity properties of optimal stopping values arising from stochastic volatility models (December 2011) Workshop- Topics in Control, Warwick.

Attendance to Conferences/Workshops

36th Conference on Stochastic Processes and their Applications (July 2013), University of Boulder, Colorado, USA.

Recent Trends in Stochastic Analysis Conference (July 2013), University of British Columbia, Canada.

UK Mathematical Finance Workshop (June 2013), King's College, London.

School and Conference on Control and Games (May 2013), University of Warwick.

Workshop- Optimal Stopping, Optimal Control and Finance (July 2012), University of Warwick.

Probability, Control and Finance: a Conference in Honor of Ioannis Karatzas (June 2012), Columbia University, New York, USA.

Workshop- Topics in Control (Nov 2011), University of Warwick.

34th Conference on Stochastic Processes and Their Applications (June 2011), Oaxaca, Mexico.

UK Easter Probability Meeting- Random Structures and Dynamics (April 2011), Mathematical Institute, University of Oxford, UK.

Teaching experience

Universidad de Sonora (2009-2010)

9111- Functions of Complex Variables

0281- Selected Topics in Applied Mathematics (Introduction to Mathematical Finance)

Universidad del Valle de México (2009-2010)

Introduction to Statistics

Analytic Geometry

Pre-calculus

University of Warwick (2010 to present)

ST115- Introduction to Probability (Term 2-2010/2011)

ST202- Stochastic Processes (Term 1-2011/2012)

ST111/112- Probability A & B (Term 2-2011/2012)

ST213- Mathematics of Random Events (Term 2- 2011/2012 and 2012/2013)

Training

Short Courses/Summer Schools

Stochastic Finance Short Course- An overview of quadratic hedging and related topics (31 Oct, 2 Nov 2011) University of Warwick.

Summer School in Financial Mathematics/Workshop on Stochastic Methods in Financial Markets (Aug-Sep 2011), Ljubljana, Slovenia.

LMS/EPSRC Short Course- Topics in Probability (3-8 April, 2011) Mathematical Institute, University of Oxford, UK.

Summer School in Probability and Stochastic Processes (August 2009) Centro de Investigación en Matemáticas A.C. (CIMAT), Guanajuato, Mexico.

Teaching workshops (at Warwick)

Enhancing skills in small group teaching- 5 hours (7 February 2013).

Reflecting on your teaching and reflective writing- 2 hours (22 February 2013).

Lecturing, assessment and research-based learning -5 hours (19 April 2013).

Teaching outside your specialism -1.5 hours (16 May 2013).

Teaching for creativity: Sciences - 2.5 hours (17 July 2013).

Teaching inclusively -2.5 hours (16 August 2013).

Public engagement

Talk at PGR Lunches, Warwick. *Knowing when to stop. Probability: the science of Chance* (4 March 2013)

Research Student Ambassador, Warwick (2011 to present).

Participation in the Images of Research photography competition at Warwick (June 2013). Winner.

Coordinator of problems in the 22nd Mexican Mathematical Olympiad, Mexico (16-22 November 2008).

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