Pietro Siorpaes

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Employment:

- Lecturer in Mathematical Finance, October 2016 - present, Imperial College London

- Postdoctoral Research Assistant in Robust Financial Mathematics,
  September 2014 – September 2016, *University of Oxford*, Mathematical Institute,
  and Member of the Oxford-Man Institute of Quantitative Finance

- Universitätsassistent Postdoc, September 2011 – August 2014
  University of Vienna, Department of Mathematics

Education:

- PhD in Mathematical Finance, 2011
  Carnegie Mellon University, Department of Mathematical Sciences
  Advisor: D. Kramkov

- M.Sc. Degree in Mathematics "with distinction", 2006
  Scuola Normale Superiore and University of Pisa
  Advisor: L. Ambrosio

- B.Sc. Degree in Physics "with distinction", 2003
  Scuola Normale Superiore and University of Pisa
  Advisor E. Guadagnini

Publications:

- Siorpaes, P. "Applications of pathwise Burkholder-Davis-Gundy inequalities." *Bernoulli Journal,* 2018, 24(4B), pp. 3222-3245
- Davis, M., Obloj, J. and Siorpaes, P. "Pathwise Stochastic Calculus with Local Times." *Annales de l'Institut Henri Poincaré,* 2018, 54(1), pp. 1-21
- Siorpaes, P. "Do arbitrage-free prices come from utility maximization?" *Mathematical Finance*, 2016, 26(3), pp. 602-616
- Siorpaes, P. "Optimal investment and price dependence in a semi-static market." *Finance and Stochastics*, 2015, 19(1), pp. 161-18
- Beiglböck, M. and Siorpaes, P. "Pathwise versions of the Burkholder-Davis-Gundy inequality." *Bernoulli Journal,* 2015, 21(1), pp. 360-373
- Siorpaes, P. "On a dyadic approximation of predictable processes of finite variation." *Electronic Communications in Probability*, 2014, 19 , pp. 1-12

- Beiglböck, M. and Siorpaes, P. “Riemann-integration and a new proof of the Bichteler-Dellacherie theorem.” *Stochastic Processes and their Applications,* 03/2014, 124(3), pp. 1226-1235

Pre-prints:

- Obloj, J. and Siorpaes, P. “Structure of Martingale Transports in finite dimension.” *arXiv preprint, arXiv: 1702.08433, 2017*

Invited

- 9^{th} International Workshop on Applied Probability, Budapest, June 2018
- Probability seminar, University of Bath, Bath, December 2017
- Workshop on Martingale Optimal Transport (and Friends), Oxford, September 2017
- SIAM-LMS Conference on Mathematical Modelling in Finance, London, August 2017
- International Workshop on BSDEs, SPDEs and their Applications, Edinburgh, July 2017
- Seminar at the GT Modèles Stochastiques en Finance, CMAP, Ecole Polytechnique, Paris, May 2017
- Séminaire de probabilités et mathématiques financières, Laboratoire de Mathématiques et Modélisation d’Évry, Paris, May 2017
- Workshop Young Researchers in Robust Mathematical Finance, Zürich, April 2017
- London Mathematical Finance Seminar, London, October 2016
- Imperial-ETH Workshop on Mathematical Finance, Zürich, September 2016
- Stochastic Analysis in Finance and Insurance Conference, Ann Arbor, June 2016
- Applied Probability and Risk Seminar, Columbia University, New York, April 2016
- Mathematical finance without probability: Pathwise methods, Functional calculus and applications, Vienna, April 2016
- 9th Oxford-Princeton workshop on Financial Mathematics and Stochastic Analysis, Princeton University, Princeton, November 2015
- Departmental Colloquium, University of Liverpool, Liverpool, October 2015
- Groupe de Travail MathfiPronum, Paris Diderot, Paris, May 2015
- Bielefeld Stochastic Afternoon, Bielefeld University, Bielefeld, April 2015
- Joint Risk and Stochastics and Financial Mathematics Seminar Series, LSE, London, February 2015
- Stochastic Analysis seminar, Humboldt University, Berlin, October 2014
- Mathematical Finance Seminar, WPI, Worcester, September 2014
- Seminar in Mathematical Finance, ETH, Zurich, December 2013
- Probability Seminar, Dublin City University, Dublin, February 2012
- Probability Seminar, Columbia University, New York, January 2012
- ORFE Stochastic Analysis Seminar, Princeton University, Princeton, January 2012
- Financial mathematics seminar, University of Vienna, Vienna, January 2011
- Oberwolfach Workshop on Stochastic Analysis in Finance and Insurance, Oberwolfach, January 2011

Contributed Talks:

- Robust Techniques in Quantitative Finance Conference, Oxford, September 2018
- Verona-Paris Stochastic Modeling Semester’s opening conference, Verona, December 2017

- First Italian Meeting on Probability and Mathematical Statistics, Turin, June 2017
- 38th Conference on Stochastic Processes and their Applications, Oxford, July 2015
- 2nd IMA Conference on Mathematics in Finance, Manchester, June 2015
- Probability and Analysis conference, Będlewo, May 2015
- 2nd conference on Stochastics of Environmental and Financial Economics, Oslo, April 2015
- 5th Workshop on Game-Theoretic Probability, Guanajuato, November 2014
- Advances in Mathematics of Finance, Warsaw, June 2013
- Frontiers in Financial Mathematics, Dublin, June 2013
- Barcelona Summer School on Stochastic Calculus, Barcelona, July 2012
- SIAM Conference on Financial Mathematics & Engineering, Minneapolis, July 2012
- 7th World Congress of the Bachelier Finance Society, Sydney, June 2012
- Workshop on Stochastic Analysis in Finance and Insurance, Ann Arbor, May 2011

Extended visits

- Hausdorff Research Institute for Mathematics, Bonn, March 2015 (5 weeks)
- École Normale Supérieure, Paris, October 2005 (4 months)

Grants and Awards:

- Dept. of Maths “Research Impulse” Platform Grant (1300£), Imperial College London, 2017
- Junior Hausdorff Trimester Program on “Optimal Transportation”, Bonn, 2015
- Tuition Fellowship for my PhD, Carnegie Mellon University, 2006 -2011
- Scholarship for my undergraduate and master studies, Scuola Normale Superiore, 2000 - 2003 and 2004 – 2006. In the admission exams I ranked 13th out of more than 600 applicants for the “class of Science”.
- “Summa cum laude” award for my M.Sc. Degree at the University of Pisa, 2006
- Foreign Exchange Grant for a 4 months visit to Paris, from Scuola Normale Superiore
- “Summa cum laude” award for my B.Sc. Degree at the University of Pisa, 2003

Teaching:

- As a Lecturer, To graduate Students

  At Imperial College London
  Independently prepared and gave all lectures, exams and homework.
    - “Convex analysis and optimization”- Spring 2017
    - “Mathematical Finance, an introduction to option pricing”- Fall 2017, 2018
    - “Convex optimization”- Spring 2018

- As an Instructor, To Undergraduate Students

  At Carnegie Mellon University
  Independently prepared and gave all lectures, exams and homework.
    - “Calculus in Three Dimensions”- Summer 2007 and 2008
    - “Calculus 1” – Summer 2010

- As a Teaching Assistant, To Graduate Students

  At the Master of Mathematics, University of Vienna
  Responsible for designing homework, administering grades and holding recitations for:
    - "Financial Mathematics: continuous time models" – Spring 2012

  At the Master of Science in Computational Finance, Carnegie Mellon University
  Responsible for monitoring an online forum, holding recitations and grading for:
    - "Topics in Quantitative Finance" – Fall 2010
    - "Stochastic Calculus for Finance 1" – Spring 2011, 2010 and 2009
    - "Advanced Derivative Modeling" – Fall 2009

- As a Teaching Assistant, To Undergraduate Students

  At the University of Vienna
  Responsible for designing homework, administering grades and holding recitations for:
    - "Financial Mathematics: continuous time models" – Spring 2012 and 2014
    - "Financial Mathematics: discrete time models" – Fall 2011 and 2013

  At Carnegie Mellon University
  Responsible for grading homework and exams and holding recitations for:
    - "Multivariate Analysis and Approximation", Fall 2008
    - "Concepts of Mathematics", Spring 2008
    - "Calculus in Three Dimensions", Fall 2007 and 2006
    - "Differential Equations", Spring 2007

- *At the University of Oxford* I designed and taught a 4 hours long lecture on "Robust Financial Mathematics" for Master Students, Spring 2015

Teacher Training:

- Teacher Training Certificate "Future Faculty Program",
  from the Eberly Center for Teaching Excellence, August 2011.
  For additional information, see http://www.eberly.cmu.edu/services/graduate-students
- "Language & Culture for Teaching", 19-hours long Workshop Series, Fall 2006

Professional Service:

- Currently supervising two PhD students
- Departmental services:
    - tutoring of M4R, MSc and undergraduate students (some throughout the year, some for their final thesis), and a foreign student on a research internship
    - handling admissions of MSc students (with two colleagues),
    - several early and late stage reviews of PhD students
    - took part in hiring committee for teaching fellows, postdocs (Chapman fellow), PhD students, and in Post Graduate Teaching committee
    - wrote reference letters

- Organized contributed session on “Martingale Optimal Transport” for the 1st Italian Meeting on Probability and Mathematical Statistics, Turin, June 2017
- Organizer of the Mathematical Finance Internal Seminar, University of Oxford, Michaelmas term 2015
- Co-organizer of the 6th summer school in Financial Mathematics, Vienna, August 2013
- Organizer of the weekly seminars, University of Vienna, Fall 2011 & 2013, Spring 2012
- Referee for: Finance and Stochastics, Mathematical finance, Bernoulli Journal, Statistics and Probability Letters, Mathematical Inequalities & Applications, SIAM Journal of Financial Mathematics, Mathscinet, Mathematics of Operations Research, Stochastic Processes and their Applications, Journal of Optimization Theory and Applications, Annals of Finance, Applied Probability Journals, Probability Theory and Related Fields, Annals of Applied Probability

Languages: Italian (native), English (fluent), French (advanced), German (beginner)

Citizenship: Italian

Marital status: Married