

Curriculum Vitae, Prof. Raphael Hauser

Contact

- ◇ Address: Mathematical Institute; University of Oxford; Andrew Wiles Building; Radcliffe Observatory Quarter; Woodstock Road; Oxford OX2 6GG; United Kingdom.
- ◇ Phone: +44 1865 615 308.
- ◇ Email: hauser@maths.ox.ac.uk.
- ◇ Web Page: <http://www.maths.ox.ac.uk/people/profiles/raphael.hauser>
- ◇ Orcid Record: <https://orcid.org/0000-0002-1166-5329>
- ◇ LinkedIn: <http://uk.linkedin.com/pub/raphael-hauser/0/691/837>

Civic Details

- ◇ Married, three children.
- ◇ Swiss and British citizen.
- ◇ Born 8 January 1967, Lucerne, Switzerland.

Education

- ◇ PhD in Operations Research, School of Operations Research & Industrial Engineering, CORNELL UNIVERSITY, Ithaca (NY, USA), Aug 1995 – Aug 1999. Supervisor: Prof. Michael J. Todd. Thesis: “Search Directions for Self-Scaled Conic Programming”. Major in Mathematical Programming, minors in Computer Science and Applied Probability.
- ◇ Dipl. Math. ETH. (Master in Mathematics and Theoretical Physics), Department of Mathematics, SWISS FEDERAL INSTITUTE OF TECHNOLOGY (ETH), Zurich (Switzerland), Oct 1989 – June 1993. Thesis supervisor: Prof. Corneliu Constantinescu. Thesis: “Smallest Faithful Representations of C^* -Algebras”. Specialisation areas: Analysis, Differential Geometry, Algebra, Theoretical physics.

Skills Training

- ◇ AI course programme offered by the AI and ML Competency Centre, UNIVERSITY OF OXFORD, 2025 – present.
- ◇ Mental Aid First Help Training, PEMBROKE COLLEGE OXFORD, 2023.
- ◇ Academic Leadership Development Programme, UNIVERSITY OF OXFORD, 2019-2020.
- ◇ Teaching training programmes CORNELL UNIVERSITY and ETH ZURICH.
- ◇ Languages: Proficiency in English, German and French, basic fluency in Italian, Portuguese and Russian, native in Alemanic (Swiss German dialect).

Academic Employment History

- ◇ Mar 2025 - Mar 2026: Assessor, PROCTORS' OFFICE, UNIVERSITY OF OXFORD, Oxford, UK.
- ◇ Jun 2022 - Aug 2024: Vicegerent, PEMBROKE COLLEGE OXFORD, Oxford, UK.
- ◇ Oct 2017 - Sep 2020: Director of Graduate Studies for Teaching (DGS-T), OXFORD MATHEMATICAL INSTITUTE, Oxford, UK.
- ◇ Sep 2016 – Aug 2018: Alan Turing Fellow, ALAN TURING INSTITUTE OF DATA SCIENCE, London, UK.
- ◇ Jan 2014 – present: Associate Professor in Mathematical Programming, OXFORD MATHEMATICAL INSTITUTE, Oxford, UK.
- ◇ Sept 2009 – Dec 2013: Reader Professor in Mathematical Programming, OXFORD MATHEMATICAL INSTITUTE, Oxford, UK.

- ◇ June 2006 – Aug 2009: Reader Professor in Mathematical Programming, COMPUTING LABORATORY, UNIVERSITY OF OXFORD, Oxford, UK.
- ◇ Sept 2001– May 2006: University Lecturer in Numerical Analysis, COMPUTING LABORATORY, UNIVERSITY OF OXFORD, Oxford, UK.
- ◇ Sept 2001–present: Tanaka Fellow in Applied Mathematics (tenured since 2006), Senior Mathematics Tutor, PEMBROKE COLLEGE OXFORD, Oxford, UK.
- ◇ Aug 1999–Aug 2001: Postdoctoral Research Associate at the Department of Applied Mathematics and Theoretical Physics (DAMTP), UNIVERSITY OF CAMBRIDGE, Cambridge, UK.
- ◇ Sept 1995–Aug 1999: Teaching Assistant, CORNELL UNIVERSITY, Ithaca, USA.
- ◇ Sept 1993 – Aug 1995: Teaching Assistant, ETH ZURICH, Zurich, Switzerland.
- ◇ Aug 1991 - July 1993: Lecturer, ABENDTECHNIKUM DER INNERSCHWEIZ, Lucerne, Switzerland.

Selected Industrial Collaborations & Consultancies:

- ◇ EVM-Tech AG, Zug. 2021–2023. Macro economic modelling for financial stress testing and development of a quantitative investment platform for fund managers (ca 2M lines of code implemented by software team).
- ◇ The Emirates Group, Dubai, UAE: Network revenue management, 2016 – 2018. Supervision of postdoctoral research project.
- ◇ Adaptix Ltd., Begbroke, UK: Development of tomographic image reconstruction algorithm for X-ray micro emitter array imaging system. 2013 – 2019, resulting in 4 international patents.
- ◇ Vincorex AG Zurich: Sept 2011, developing a trade size model for a high frequency quant strategy under consideration of volatility spikes.
- ◇ Oxford Risk, Oxford. Jan 2011 – Aug 2015. Quantitative methods for risk rating and risk tolerance assessment systems (tool used by > 3000 client advisers of HSBC Wealth Management world wide).
- ◇ Winton Capital, London. June 2008 – Dec 2009. Development, prototyping and backtesting of a purely quantitative investment strategy to trade future contracts (medium-frequency trading).

Honours

- ◇ Scientific Advisory Board at COMCOM Ltd., Slovenia, 2017 – present
- ◇ Scientific Advisory Board at Exabel AS, Norway, 2016 – 2020.
- ◇ Scientific Advisory Board at Adaptix Ltd., UK, 2013 – 2018.
- ◇ Oxford University Teaching Award, 2007.
- ◇ 2005 SIAM Activity Group on Optimization Prize for the paper, "The Nesterov-Todd Direction and Its Relation to Weighted Analytic Center" (Foundations of Computational Mathematics, 1-40, 2004).
- ◇ 2000 SIAM Student Paper Prize for the paper "Target Directions for Primal-Dual Interior-Point Methods for Self-Scaled Conic Programming".

Publications (Orcid 0000-0002-1166-5329)

Patents

- ◇ R.A. Hauser and M. Klodt. “3D Image Reconstruction from X-Ray Measurements with Overlap”. Springer International Publishing AG 2016, B. Leibe et al. (Eds.): ECCV 2016, Part VI, LNCS 9910, 19–33, 2016. DOI: 10.1007/978-3-319-46466-4 2.
- ◇ R.A. Hauser, M. Klodt., G. Travish and P. Betteridge. “*Method and System for Reconstructing 3-Dimensional Images from Spatially and Temporally Overlapping X-Rays*”. US patent application 15230501, priority filing August 2016. Publication No WO/2018/029439. <https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2018029439&tab=PCTBIBLIO>.
- ◇ R.A. Hauser and G. Travish. “*A method of designing an x-ray emitter panel*”. Application PCT/IB2015/057792, priority filing October 16 2014. World wide Patent WO2016059535 A1 granted April 21 2016. <https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2016059535>.
- ◇ R.A. Hauser, K. Patel and G. Travish. “*Medical imaging system with a fixed array of X-ray detectors and a fixed array of X-ray emitters for producing a digital 3-dimensional image*”. US Patent application PCT/IB2016/000119, priority filing December 2015. International Application No PCT/IB2016/000637, filing date 25 Jan 2016. Publication No WO/2017/130018, publication date 03 Aug 2017. <https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2017130018>.
- ◇ R.A. Hauser and D. Goodman. “*Parallel Processing*”. UK Patent Application PXM40225P.GBA, priority filing Feb 22 2008, US Patent US20090216996 A1 filed Feb 20 2009. IPC G06F 9/38, G06F 9/02, G06F 15/76. Publication date 27 Aug 2009. Publication No 20090216996. <https://patents.google.com/patent/US20090216996>

Articles, Book Chapters and Reports

- ◇ G. Antonucci, R.A. Hauser, D. Samaddar and J.C. Buchanan. “Finite-Time Convergence Guarantees for Time-Parallel Methods”, 2026. arxiv:2604.00855
- ◇ K. Welzel, Y. Liu, R.A. Hauser, and C. Cartis. “Local Convergence of Adaptively Regularized Tensor Methods”, SIAM J Opt. 2026.
- ◇ C. Cartis, R.A. Hauser, Y. Liu, and W. Zhu. “Efficient Implementation of Third-order Tensor Methods with Adaptive Regularization for Unconstrained Optimization”, Mathematical Programming Computation, Mar 2026.
- ◇ I.A. Puiu and R.A. Hauser. “On Market Clearing of Day Ahead Auctions for European Power Markets: Cost Minimisation versus Social Welfare Maximisation”. Energy Economics, Elsevier, vol. 139(C), 2024.
- ◇ K. Welzel and R.A. Hauser. “Approximating higher-order derivative tensors using secant updates”. SIAM J Opt. 2024.
- ◇ O. Gunluk, R.A. Hauser and R. Kovacs. “Binary matrix factorisation and completion via integer programming”. Math of OR, Informs, 2023. <http://dx.doi.org/10.1287/moor.2023.1386>
- ◇ J. Vaes and R.A. Hauser. “Optimal trade execution with uncertain volume target”. Journal of Computational Finance, 2022. <http://dx.doi.org/10.21314/JCF.2022.018>
- ◇ I.A. Puiu and R.A. Hauser. “Principled data completion of network constraints for day ahead auctions in power markets”. IEEE Transactions on Power Systems, 2022. <http://dx.doi.org/10.1109/tpwrs.2022.3150395>
- ◇ R.A. Hauser and A. Eftekhari. “PCA by Optimisation of Symmetric Functions has no Spurious Local Optima”. arXiv:1805.07459 [math.OC]. 2018. Accepted for publication in SIAM Journal on Optimization 2019.
- ◇ R.A. Hauser and H. Matzinger. “Microscopic path structure of optimally aligned random sequences”. Bernoulli 26(1), 2020, 1–30. <https://doi.org/10.3150/18-BEJ1053>
- ◇ R.A. Hauser and H. Matzinger. “Supplement: Microscopic Path Structure of Optimally Aligned Random Sequences”. *Bernoulli*, 2020, 15 pages
- ◇ A. Eftekhari, R.A. Hauser and A. Grammenos. “MOSES: A Streaming Algorithm for Linear Dimensionality Reduction”. Accepted for publication in IEEE Transactions on Pattern Analysis and Machine Intelligence, May 2019. DOI 10.1109/TPAMI.2019.2919597. arXiv:1806.01304 [cs.IT]
- ◇ R.A. Hauser, J. Lember, H.F. Matzinger, and R. Kangro. “Quantifying the Estimation Error of Principal Components”. Information and Inference: A Journal of the IMA, <https://doi.org/10.1093/imaia/iaz014>. Published: 11 July 2019. arXiv:1710.10124[math.ST].

- ◇ G. Simões, M. McDonald, S. Williams, D. Fenn, R.A. Hauser. “Robust Portfolio Optimisation with Benchmark Regret”. *Quantitative Finance*, 2018, 18, 1–13. <https://doi.org/10.1080/14697688.2018.1453940>
- ◇ R.A. Hauser, I. Popescu and H.F. Matzinger. “An Upper Bound on the Convergence Rate of a Second Functional in Optimal Sequence Alignment”. *Bernoulli* 2018, Vol. 24, No. 2, 971–992. DOI 10.3150/16-BEJ823. <http://dx.doi.org/10.3150/16-BEJ823>.
- ◇ R.A. Hauser, A. Eftekhari and H. Matzinger. “PCA by Determinant Optimization has no Spurious Local Optima”. *KDD* 2018. DOI: 10.1145/3219819.3220069.
- ◇ R. Hauser and M. Klodt. “Nonlinear Compressed Sensing for Multi-Emitter X-Ray Imaging”. Springer International Publishing AG 2016, E. Hancock et al. (Eds.): *EMMCVPR 2017 Revised Selected Papers*. LNCS 10746, 189–204, 2018. DOI: 10.1007/978-3-319-78199-0.
- ◇ R. Kovacs, O. Gunluk and R.A. Hauser. “Low-Rank Boolean Matrix Approximation by Integer Programming”. *NIPS* 2017, *Optimization in Machine Learning Workshop*. arXiv:1803.04825 [cs.LG].
- ◇ M. Troha and R.A. Hauser. “Calculation of a term structure power price equilibrium with ramping constraints”. *Journal of Energy Markets*, Vol. 8, No. 4 (Dec 2015), 23–68. DOI: 10.21314/JEM.2015.134. ISSN: 1756-3607 (print).
- ◇ S. Amsalu, R. Hauser and H. Matzinger. “A Monte Carlo Approach to the Fluctuation Problem in Optimal Alignments of Random Strings”. *Markov Processes and Related Fields*, Vol. 20, No. 1 (2014), 107 –144. <https://arxiv.org/abs/1211.5489>.
- ◇ R.A. Hauser, S. Shahverdyan and P. Embrechts. “A General Duality Relation with Applications in Quantitative Risk Management”. Chapter 22 in “*Innovations in Quantitative Risk Management*”, Springer Verlag, 2014. DOI 10.1007/978-3-319-09114-3_22
- ◇ R.A. Hauser and H. Matzinger. “Letter Change Bias and Local Uniqueness in Optimal Sequence Alignments”. *J. Stat. Phys.*, Vol 153, No. 3 (2013), 512–529. DOI 10.1007/s10955-013-0819-4.
- ◇ T. Schmelzer and R.A. Hauser. “Seven Sins in Portfolio Optimization”, 2013. <https://ora.ox.ac.uk/objects/uuid:7b071842-ed7a-4f95-81cd-0eb09e525433/files/m4761ce7c12c713ef255434a9dba0a90b>
- ◇ T. Schmelzer, R. Hauser, E. Andersen and J. Dahl. “Regression techniques for portfolio optimisation using MOSEK”, 2012. <https://ora.ox.ac.uk/objects/uuid:1590798d-c5f0-4d86-93a3-246b4d9c05d0/files/meb9607a5771358055e129a4ff34a9382>.
- ◇ F. Cucker, R.A. Hauser and M. Lotz. “Adversarial Smoothed Analysis”, *J. Complexity* 26 (2010), no. 3, 255–262. <https://arxiv.org/abs/0903.3499>
- ◇ R.A. Hauser and T. Müller. “Conditioning of random conic systems under a general family of input distributions”, *Found. Comput. Math.* Vol. 9, No. 3. (2009), 335–358. <https://link.springer.com/article/10.1007/s10208-008-9034-0>.
- ◇ C. Dürringer, R.A. Hauser and H. Matzinger. “Upper bounds on the mean curve in the LCS problem”. *Stochastic Processes and their Applications* 118 (2008), 629–648. <https://www.sciencedirect.com/science/article/pii/S0304414907000956>
- ◇ R.A. Hauser and J. Nedić. “On the relationship between convergence rates of discrete and continuous dynamical systems”, *SIAM J. Optim.* 18 (2007), no. 1, 52–64. <https://epubs.siam.org/doi/abs/10.1137/040620631>
- ◇ R.A. Hauser and R. Tütüncü. “SDP Approximability of Relative Robust QP”, *Proc. Appl. Math. Mech.* 7, 2060043–2060044 (2007). *PAMM* Vol 7, Issue 1. <https://onlinelibrary.wiley.com/toc/16177061/2007/7/1>
- ◇ N. Gupta and R.A. Hauser. “Kalman Filtering with Equality and Inequality State Constraints”, 2008. <https://ora.ox.ac.uk/objects/uuid:2ab18390-b237-48c8-8516-9659a54d76d1/files/m662f717d06a3cc9f9a114226c529d101>
- ◇ N. Gupta, R. Hauser and N. Johnson. “Robust methods for tracking intelligent agents playing in an artificial financial market”, *AAMAS*, May 2007. https://www.researchgate.net/publication/221455052_Robust_methods_for_tracking_intelligent_agents_playing_in_an_artificial_financial_market
- ◇ A. Argyriou, R. Hauser, Ch. Micchelli and M. Pontil. “A DC-programming algorithm for kernel selection”. *Proceedings of ICML 2006*. DOI: 10.1145/1143844.1143850. <https://dl.acm.org/citation.cfm?id=1143850>
- ◇ R.A. Hauser, S. Martinez and H. Matzinger. “Large deviations based upper bounds on the expected relative length of longest common subsequences”, *Advances in Applied Probability* 38 (3), 827–852. September 2006. DOI: 10.1017/S0001867800001294. https://www.researchgate.net/publication/305977456_Large_deviations-based_upper_bounds_on_the_expected_relative_length_of_longest_common_subsequences

- ◇ N. Gupta, R. Hauser and N. Johnson "Deducing the multi-trader population driving a financial market", *Proc. SPIE* 6039, Complex Systems, 603909 (5 January 2006); <https://doi.org/10.1117/12.638334>
- ◇ E. Amaldi, P. Belotti and R. Hauser. "A randomized algorithm for the MaxFS problem". *Integer Programming and Combinatorial Optimization: 11th International IPCO Conference*, Berlin, Germany, June 8-10, 2005. *Proceedings Lecture Notes in Computer Science*, Volume 3509 / 2005, 249 – 264. Editors: Michael Jünger, Volker Kaibel. Springer-Verlag GmbH, ISSN: 0302-9743. 10.1007/11496915_19. <https://dl.acm.org/citation.cfm?id=2129778>
- ◇ R.A. Hauser and E. Amaldi. "Boundedness Theorems for the Relaxation Method". *Math of OR* 30 (2005), no. 4, 939–955. DOI: 10.1287/moor.1050.0164. <https://pubsonline.informs.org/doi/10.1287/moor.1050.0164>
- ◇ R.A. Hauser and J. Nedić. "The continuous Newton-Raphson method can look ahead". *SIAM J. Optim.* 15 (2005), no. 3, 915–925. http://www.optimization-online.org/DB_FILE/2003/08/702.ps
- ◇ N. Gupta, R. Hauser and N. Johnson (2005). "Forecasting Financial Time-Series using an Artificial Market Model". *Workshop on Economic Heterogeneous Interacting Agents. Workshop on Economic Heterogeneous Interacting Agents 2005*. Essex, United Kingdom. arXiv:0706.0870 [cs.CE]. <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.262.1015>
- ◇ D. Cheung, F. Cucker and R.A. Hauser. "On Tail Decay and Moment Estimates of a Condition Number for Random Linear Conic Systems". *SIAM J. Optim.* 15 (2005), no. 4, 1237–1261. <https://epubs.siam.org/doi/abs/10.1137/S105262340343470X>
- ◇ R.A. Hauser. "The Nesterov–Todd direction and its relation to weighted analytic centers". *Found. Comput. Math.* 4 (2004) no. 1, 1–40. Winner of the 2005 SIAM Activity Group on Optimization Prize. <https://link.springer.com/article/10.1007/s10208-000-0009-z>
- ◇ R.A. Hauser and Y. Lim. "Self-scaled barriers for irreducible symmetric cones". *SIAM J. Optim.* 12 (2002), no. 3, 715–723. <https://epubs.siam.org/doi/pdf/10.1137/S1052623400370953>
- ◇ R.A. Hauser and O. Güler. "Self-scaled barrier functions on symmetric cones and their classification". *Found. Comput. Math.* 2 (2002), no. 2, 121–143. <https://link.springer.com/article/10.1007/s102080010022>
- ◇ R.A. Hauser and N. Kirchner. "A Historical Note on the Entropy Principle of Muller and Liu". *Contin. Mech. Thermodyn.* 14 (2002), no. 2, 223–226. <https://link.springer.com/content/pdf/10.1007/s001610100063.pdf>
- ◇ R.A. Hauser. "On Search Directions for Self-Scaled Conic Programming". Ph.D. thesis. School of Operations Research and Industrial Engineering, Cornell University, Ithaca, NY, USA. January 2000. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.33.9478&rep=rep1&type=pdf>
- ◇ R.A. Hauser and H. Matzinger. "Compact elements and smallest faithful representation of a C^* -algebra". *Proc. Amer. Math. Soc.*, Vol.123, (1995), no. 11, 3379–3384. <https://www.ams.org/journals/proc/1995-123-11/S0002-9939-1995-1285995-7/S0002-9939-1995-1285995-7.pdf>
- ◇ R.A. Hauser. "Smallest Faithful Representations of C^* -Algebras". Master thesis in mathematics, ETH Zurich, 1993.

Financements Obtained

- ◇ "Medium-Term Forecasting of Airport Passenger Numbers". EPSRC Grant EP/R511742/1 IAA Technology Fund. Awarded Dec 2018, GBP 11,092.62.
- ◇ "Pattern Mining Approaches to Sparse Matrix Factorisations with Structured Data Types". EPSRC Grant EP/N510129/1, Turing Fellowship. Alan Turing Institute, London. Awarded Sep 2018.
- ◇ "Distributed Approximate Interior Point Methods for Big Data Problems". Grant TU/B/000038. Turing Fellowship. Alan Turing Institute, London. Awarded Sep 2016.
- ◇ "Tomosynthesis in X-Ray Emitter Array Imaging Systems". Grant EP/K503769/1. EPSRC Impact Acceleration Secondment Scheme. Awarded Feb 2016, GBP 104'470.-, to fund a one-year postdoctoral position at the Oxford Mathematical Institute and Adaptix Ltd.
- ◇ "Image Recovery in Flat-Screen X-Ray Systems". EPSRC grant EP/H02686X/1, Platform Grant Scheme 5 of the Oxford Mathematical Institute. Awarded November 2013, GBP 22,480.– plus overheads, matched by GBP 48,400.– from Adaptix Ltd. to fund a one-year postdoctoral position at the Oxford Mathematical Institute.

- ◇ "Quantitative Investment Management in a Post-Crisis World". DPhil grant BK/13/002 paid for by HSBC, GBP 130,000.–.
- ◇ "Order of Fluctuations in Random Media". Grant EP/I01893X/1. Platform Grant Scheme 3 of the Oxford Mathematical Institute. Awarded June 2011, funding two visitors for a period of two months (GBP 5000.–). Completed by grant SGS/11 from the IMA (GBP 400.– awarded in August 2011).
- ◇ "Structured Sparsity Methods in Machine Learning and Convex Optimisation". EPSRC grant EP/H02686X/1, responsive mode. Co-PI with Massimiliano Pontil (UCL). Awarded Dec 2009 (Oxford part GBP 154'740.–) for a period of three years.
- ◇ "Robust Portfolio Optimisation". EPSRC CASE studentship proposal co-funded by NOMURA as industrial partner. Co-PI with William Shaw (OCIAM). Accepted June 2004. CASE studentship awarded for a period of three years (GBP 48,000.– plus student fees). CASE student: Denis Zuev.
- ◇ "Grid Services for Distributed Data Analysis". Studentship project proposal submitted to NERC, March 2003. Co-PI with Myles Allen (Oxford Atmospheric Physics) and Andrew Martin (OUCL). Accepted June 2003. CASE studentship awarded for a period of three years (GBP 48,000.– plus student fees). CASE student: Daniel Goodman.
- ◇ "Feasibility Control in nonlinear systems solving". Research proposal submitted to Nuffield Foundation under the award scheme of newly appointed lecturers in science, engineering and mathematics. Principal Investigator. Accepted April 2003. GBP 5000.– awarded.
- ◇ "Stiffness in Optimisation". Grant GR/S34472/01. EPSRC grant proposal submitted in responsive mode, September 2002, three year project with 30 month appointment of a postdoctoral research associate. Principal investigator. Accepted March 2003. GBP 120,000.– awarded. Postdoctoral research associate: Coralia Cartis.
- ◇ "Newton Directions for Interior-Point Methods in Self-Scaled Conic Programming". Research proposal submitted to the award scheme *Bourses pour Chercheurs Débutants* from the Swiss National Science Foundation and the Swiss Academy of Technical Sciences. Principal Investigator. SFr. 43,000.– awarded August 1998.

Supervision

Postdoctoral Research Associates

- ◇ Jaroslav Fowkes. Postdoctoral Research Fellow at the Oxford Emirates Data Laboratory, Sep 2016 – present.
- ◇ Maria Klodt. Postdoctoral Research Fellow on EPSRC Platform Grant co-funded by Radius Diagnostics Ltd. Jan 2015 – Apr 2017. Joined the Engineering Department of the University of Oxford as a postdoc.
- ◇ Martin Lotz. Research Fellow on the DFG Grant "Geometric Methods in the Probabilistic Analysis of Condition Numbers". 14 Months starting from June 2008. Joined the University of Edinburgh as a postdoc, followed by an Assistant Professorship at Manchester University. Now an Associate Professor at Warwick University.
- ◇ Coralia Cartis. Postdoctoral research associate on EPSRC funded project "Stiffness in Optimisation". Joined Edinburgh University as a University Lecturer, now an Associate Professor at the University of Oxford.

Doctoral Students

- ◇ Karl Welzel, Oxford Mathematical Institute, Oxford, UK, current. "Tensor methods in non-linear optimisation".
- ◇ Giancarlo Antonucci, CDT in Industrially Focussed Mathematical Modelling, Mathematical Institute, Oxford, UK, current. "Time Parallel Algorithms for Tokamak Simulation". In collaboration with the Culham Centre for Fusion Energy, Culham, UK.
- ◇ Joseph Field, CDT in Industrially Focussed Mathematical Modelling, Mathematical Institute, Oxford, UK, current. "Motion correction in conic X-ray tomography". In collaboration with Adaptix Imaging Ltd, Begbroke, UK.
- ◇ Ioan Alexandru Puiu, CDT in Industrially Focussed Mathematical Modelling (InFoMM), Oxford Mathematical Institute, Oxford, UK, 2023. "A Simulation Framework for Electricity Markets". Joint supervision with Graham Allsop, Chris Doyle, Vincent Guffens and Ben Readman (Macquarie Group, London, U.K.)

- ◇ Melanie Beckerleg, CDT in Industrially Focussed Mathematical Modelling, Mathematical Institute, Oxford, UK, 2022. “Bioactivity prediction from chemical and protein structure”. Co-supervised with Andrew Thompson (National Physics Laboratory) in collaboration with E-Therapeutics.
- ◇ Mario Lezcano, Numerical Analysis Group, Oxford Mathematical Institute, 2022. “Geometric optimisation on manifolds with applications to deep learning”.
- ◇ Reka Kovacs, Alan Turing Institute, London, UK, 2023. “Unified Framework of Dimensionality Reduction in Data Science”.
- ◇ Julien Vaes, Alan Turing Institute, London, UK, 2022. “Power network optimization”.
- ◇ Jonathan Peters, CDT in Industrially Focussed Mathematical Modelling, Mathematical Institute, Oxford, UK, 2022. “Steam Turbine Optimization”. In collaboration with Siemens Power Systems, Muelheim an der Ruhr, Germany.
- ◇ Gonçalo Simoes Matos, Mathematical Finance Group, Mathematical Institute, Oxford, UK, 2018. “Robust Portfolio Optimisation with Filtering Uncertainty”.
- ◇ Sheng Fang, Numerical Analysis Group, Mathematical Institute, Oxford, UK, 2018. “Distributed Computing of Large-Scale Singular Value Decompositions”.
- ◇ Miha Troha, Numerical Analysis Group, Mathematical Institute, Oxford, UK, 2015. “Fundamental model for dynamics of electricity prices”.
- ◇ Sergey Shahverdyan, Mathematical Finance Group, Mathematical Institute, Oxford, UK, 2015. “Model Free Optimisation in Risk Management”.
- ◇ Denis Zuev, Oxford Centre for Industrial and Applied Mathematics, UK, 2009. “Robust Portfolio Optimisation with Structured Uncertainty”.
- ◇ Nachiketa Gupta, Oxford University Computing Laboratory, UK, 2008. “Constrained Kalman Filtering and Complex Systems”.
- ◇ Daniel Goodman, Oxford University Computing Laboratory, UK, 2007. “A Service Oriented Architecture and Language for Abstracted Distributed Algorithms”. Jointly supervised with Andrew Martin (OUCL).
- ◇ Jelena Nedić, Oxford University Computing Laboratory, UK, 2004. “On the Dynamics of Unconstrained Optimisation Methods”.

Doctoral Training Projects

- ◇ Deqing Jiang, CDT in Industrially Focussed Mathematical Modelling (InFoMM), Oxford Mathematical Institute, Oxford, UK, Apr 2020 – Jul 2020. “Non-linear Modelling of European Gas Balance”.
- ◇ Christoph Hoeppeke, CDT in Industrially Focussed Mathematical Modelling (InFoMM), Oxford Mathematical Institute, Oxford, UK, Jul – Sep 2019. “Scheduling optimisation for electric vehicle systems in London”. Joint supervision with Christoph Reisinger (Oxford Mathematical Institute) and with Ian Wilkinson and Tim Hughes (Siemens, London, U.K.).
- ◇ Ioan Alexandru Puiu, CDT in Industrially Focussed Mathematical Modelling (InFoMM), Oxford Mathematical Institute, Oxford, UK, Jul – Sep 2019. “Network constraints and renewables impact on power price equilibrium”. Joint supervision with Graham Allsop, Chris Doyle, Vincent Guffens and Ben Readman (Macquarie Group, London, U.K.).
- ◇ Yu Tian, CDT in Industrially Focussed Mathematical Modelling (InFoMM), Oxford Mathematical Institute, Oxford, UK, Jul – Sep 2019. “Inter-District Package Gas Optimization”. Joint supervision with Sita Jenkins (AirProducts and Chemicals Inc., Walton on Thames, U.K.).
- ◇ Giancarlo Antonucci, CDT in Industrially Focussed Mathematical Modelling (InFoMM), Oxford Mathematical Institute, Oxford, UK, Apr–Jun 2018. “Optimisation of the Size of the Time Chunks in Implementing the Parareal Algorithm”. Joint supervision with Debasmita Samaddar (Culham Centre for Fusion Energy).
- ◇ Jonathan Peters, CDT in Industrially Focussed Mathematical Modelling (InFoMM), Oxford Mathematical Institute, Oxford, UK, Jul–Sep 2017. “Robust vehicle routing”. Joint supervision with Jeremy Bradley and George Dikas (Tesco PLC, UK).
- ◇ Joseph Field, CDT in Industrially Focussed Mathematical Modelling (InFoMM), Oxford Mathematical Institute, Oxford, UK, Jul–Sep 2017. “Parametric Models for Motion Correction”. Joint supervision with Andrew Thompson (Oxford Mathematical Institute), Gil Travish and Paul Betteridge (Adaptix Ltd., UK).

- ◇ Alissa Kamilova, CDT in Industrially Focussed Mathematical Modelling (InFoMM), Oxford Mathematical Institute, Oxford, UK, Jul–Sep 2017. “Blade Path Optimization in Steam Turbine Design”. Joint supervision with Tobias Ruehle (Siemens AG, Germany).

MSc Theses

- ◇ Yiming Mao, University of Oxford, UK, Apr 2023 – Jun 2023. “Modeling Net Hedging Demand in Cross Currency Swaps”. MSc in Mathematical Finance.
- ◇ Ruoxiao Yang, University of Oxford, UK, Apr 2023 – Jun 2023. “Properties and applications of approaches to Expected Shortfall (ES) back-testing ”.
- ◇ Alexander Kenny, University of Oxford, UK, May 2021 – Aug 2021. MSc in Mathematical Modelling and Scientific Computing. “The Meal Delivery Problem”.
- ◇ David Clarke, Mathematical Institute, University of Oxford, UK, Dec 2018–Apr 2019. “Stochastic Gradient Descent Methods for Convex Optimisation”. Oxford Masters of Mathematical Sciences / Part C.
- ◇ Kieran Wood, Mathematical Institute, University of Oxford, UK, Dec 2018–Apr 2019. “Stochastic Gradient Descent Methods for Training Deep Neural Networks”. Oxford Masters of Mathematical Sciences / Part C.
- ◇ Badr-Eddine Abdallaoui, Mathematical Institute, University of Oxford, UK, Dec 2018–Apr 2019. “Modern Stochastic Gradient Descent Methods”. Oxford Masters of Mathematical Sciences / Part C.
- ◇ Thom Fronik, University of Oxford, UK, May 2019 – Sep 2019. “Passenger Forecasting via LSTM Neural Networks”. MSc in Mathematical Modelling and Scientific Computing. Co-supervised with Jaroslav Fowkes.
- ◇ Joshua Hyde, University of Oxford, UK, May 2019 – Sep 2019. “Demand Models for Revenue Management in the Airline Industry”. MSc in Mathematical Modelling and Scientific Computing. Co-supervised with Jaroslav Fowkes.
- ◇ Saksham Jain, University of Oxford, UK, May 2019 – Sep 2019. “Iterative Quadratic Programming in Network Revenue Management”. MSc in Mathematical Modelling and Scientific Computing. Co-supervised with Jaroslav Fowkes.
- ◇ Julien Bruno, MSc in Mathematical Modelling and Scientific Computing, Oxford Mathematical Institute, UK, May–Sep 2018. “Risk Averse Dynamic Pricing in Revenue Management of Network Carriers.” Co-supervised with Jaroslav Fowkes.
- ◇ Ningzhi Tang, MSc in Mathematical Modelling and Scientific Computing, Oxford Mathematical Institute, UK, May–Sep 2018. “Medium-Term Forecasting of Airport Passenger Numbers”. Co-supervised with Jaroslav Fowkes.
- ◇ Reka Kovacs, MSc in Mathematical Modelling and Scientific Computing, Oxford Mathematical Institute, UK, May–Sep 2017. “Integer Programming Models for Boolean Matrix Factorization”.
- ◇ Ilan Price, MSc in Mathematical Modelling and Scientific Computing, Oxford Mathematical Institute, UK, May–Sep 2017. “Demand Unconstraining in Revenue Management”. Co-supervised with Jaroslav Fowkes.
- ◇ Alexis Nortier, Part-time MSc in Mathematical Finance. Oxford Mathematical Institute, UK, 2016. “Robust Optimization of Portfolios with Factor Exposure”.
- ◇ Andraz Erzin, MSc in Mathematical and Computational Finance, Oxford Mathematical Institute, UK, Jun 2015. “Applying Machine Learning Techniques to Portfolio Optimization”.
- ◇ Islam Hassouna, MSc in Mathematical Modelling and Scientific Computing, University of Oxford, UK, May–Sep 2014. “Flight Survey Path Optimization”. Industrial project sponsored by Arkex Ltd.
- ◇ Bruno Rosetto, MSc in Mathematical and Computational Finance, University of Oxford, UK, Apr–Jun 2014. “Multi-Period Minimum Entropy Conditional Portfolio Updating and Allocation”.
- ◇ Fangyuan Cao, MSc in Mathematical Modelling and Scientific Computing, University of Oxford, UK, May–Sep 2013. “Optimal Toothbrush Design”. Industrial Project sponsored by Philips.
- ◇ Kevin Ngan, MSc in Mathematical and Computational Finance, University of Oxford, UK, Apr–Jun 2013. “LCS and Data Cleaning in High Frequency Trading.”
- ◇ Naveed Ausaf, MSc in Mathematical Modelling and Scientific Computing, University of Oxford, UK, May–Sep 2013. “Optimal Sequence Alignment by Distributional Information”.
- ◇ Karyn Cooke, Part C Dissertation, Oxford Mathematical Institute, UK, Oct 2012 – Mar 2013. “Quadratic Integer Programming and the Cross-Docking Problem”.
- ◇ (Co-Supervisor of) Benjamin Timmerman, MSc in Mathematical Finance, University of Oxford, UK, Dec 2012. “Pricing CMS Spread Options under different Copulas”.

- ◇ Andrew Taylor, MSc in Mathematical Modelling and Scientific Computing, University of Oxford, UK, May–Sep 2012. “Dynamic Lap Time Simulation of Circuit Racing Cars”. Industrial project sponsored by a Formula 1 team that cannot be named for confidentiality reasons.
- ◇ Kishan Patel, MSc in Mathematical Modelling and Scientific Computing, University of Oxford, UK, May–Sep 2012. “Imaging with X-Ray Emitter Arrays”. Industrial project sponsored by Radius Diagnostics Ltd. Winner of the 2014 Hansjörg Wacker Memorial Prize.
- ◇ Kirat Dhillon, MSc in Mathematical Modelling and Scientific Computing, University of Oxford, UK, May–Sep 2012. “Knapsack Problems”. Industrial project sponsored by NAG Ltd.
- ◇ Ben Wang, MSc in Mathematical Modelling and Scientific Computing, University of Oxford, UK, May–Sep 2012. “Multi-Objective Optimization”.
- ◇ Ekta Golchha, MSc in Mathematical and Computational Finance, University of Oxford, UK, Apr–Jun 2012. “Portfolio Optimization with Drawdown Constraints”.
- ◇ Maulik Pipalia, Part C Dissertation, Oxford Mathematical Institute, UK, Oct 2011 – Mar 2012. “Optimal Trade Execution”.
- ◇ Marcello Mezzedimi, MSc in Mathematical Finance, University of Oxford, UK, Jun 2011. “Alpha Return on Portfolios Hedged with Short ETFs”.
- ◇ Bo Guan, MSc in Mathematical and Computational Finance, University of Oxford, UK, Apr–Jun 2011. “Parameter Shrinkage in Covariance Estimation”.
- ◇ Yijun Liu, MSc in Mathematical and Computational Finance, University of Oxford, Apr–Jun 2011. “Optimal Trade Execution”.
- ◇ Sally Hutchings, Mathematics and Foundations of Computer Science, University of Oxford, UK, May–Sep 2011. “The Behaviour of Modularity-Optimizing Community Detection Algorithms”.
- ◇ Andree Heseler, MSc in Mathematical Finance, University of Oxford, UK, Sep 2011. “Asset Allocation under a Conditional Diversification Measure”.
- ◇ Nga Hoang, MSc in Mathematical Modelling and Scientific Computing, University of Oxford, UK, May–Sep 2010. “Parallel Line Search Methods”. Industrial project sponsored by NAG Ltd.
- ◇ James Wood, MSc in Mathematical Modelling and Scientific Computing, University of Oxford, UK, May–Sep 2010. “Maximum Likelihood Estimation in Phylogenetic Trees”.
- ◇ Sha Duans, MSc in Mathematical and Computational Finance, University of Oxford, UK, Apr–Jun 2010. “Variable Gearing in Asset Management”.
- ◇ Nicholas Balz, Part C Dissertation, Oxford Mathematical Institute, UK, Oct 2009 – Mar 2010. “Newton’s Method and Newton Fractals”.
- ◇ Samuel Clarke, MSc in Mathematical Modelling and Scientific Computing, OUCL and OCIAM, Oxford, UK, May–Sep 2007. “Robust Staff Level Optimisation in Call Centres”.
- ◇ Delany Adom, MSc in Mathematical Modelling and Scientific Computing, OUCL and OCIAM, Oxford, UK, May–Sep 2007. “Robust Deviation Optimisation in Portfolio Theory”.
- ◇ Ivan Weber, MSc in Mathematical Modelling and Scientific Computing, OUCL and OCIAM, Oxford, UK, May–Sep 2005. “Robust Pricing in Revenue Management”.
- ◇ Kanika Dhyani, MSc in Mathematical Modelling and Scientific Computing, OUCL and OCIAM, Oxford, UK, May–Sep 2004. “Computational Study of a New Polynomial Time Algorithm for Linear Programming”.
- ◇ Christian Schröder, MSc in Applied and Computational Mathematics, OUCL and OCIAM, Oxford, UK, May–Sep 2004. “Semidefinite Programming Bounds in Bayesian Statistics”.
- ◇ Quentin Decouvlaere, M.Sc. in Mathematical Modelling and Scientific Computing, OUCL and OCIAM, Oxford, UK, May–Sep 2003. “Upper Bounds for the LCS Problem”.
- ◇ Berthold Heymann, part time M.Sc. in Mathematical Finance, OCIAM, Oxford, UK, Sep 2004. “Optimisation Approach for Asset Liability Management/Capital Allocation”.
- ◇ Nadine Gottschalk, part time M.Sc. in Mathematical Finance, OCIAM, Oxford, Sep 2003. “Robust Portfolio Management”.
- ◇ Roman Pausch, part time M.Sc. in Mathematical Finance, OCIAM, Oxford, UK, Nov 2002. “Shortfall Risk Approach to Managing the Portfolio of a Pension Fund”.

- ◇ Ka Victoria Mak, M.Sc. in Mathematical Modelling and Scientific Computing, OUCL and OCIAM, Oxford, UK, May–Sep 2002. “A Heuristic for Portfolio Rebalancing with Transaction Costs”.
- ◇ Gauthier Lambert, M.Sc. in Mathematical Modelling and Scientific Computing, OUCL and OCIAM, Oxford, May–Sep 2002. “Valuing Gas Storage”, industrial project.
- ◇ Juergen Stein, part time M.Sc. in Mathematical Finance, OCIAM, Oxford, UK, Aug 2002. “Portfolio Theory and Market Fluctuation”.

Undergraduate Theses

- ◇ Hongyi Chen, Pembroke College, University of Oxford, UK, Jun–Aug 2023. “Accelerated Subgradient Methods in Large Scale Machine Learning”.
- ◇ Shen Zhao, Pembroke College, University of Oxford, UK, Jun–Aug 2016. “Principal Component Analysis of Internet Traffic and Web Site Optimization”.
- ◇ Fabian Ying, Mathematical Institute, University of Oxford, UK, Jun–Aug 2014. “Integrality Constraints in Portfolio Optimisation”.
- ◇ Marta Kaczan, Part B Dissertation, Mathematical Institute, University of Oxford, UK, Oct 2013 – Mar 2014. “Portfolio Optimisation”.
- ◇ Chris Lormoor, Part B Dissertation, Oxford University Computing Laboratory, UK, Apr – Jun 2006. “Large Scale Linear Programming”.

Teaching

Lecturing

- ◇ Hilary Term 2024: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *B6.2 Optimisation for Data Science*.
- ◇ Michaelmas Term 2023: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *B6.3 Integer Programming*.
- ◇ Hilary Term 2023: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *B6.2 Optimisation for Data Science*.
- ◇ Michaelmas Term 2022: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *B6.3 Integer Programming*.
- ◇ March 2022: Optimisation for Data Science - Part III AIMS - Foundational Methods in Data Science Training School, Kigali, Rwanda.
- ◇ Hilary Term 2022: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *B6.2 Optimisation for Data Science*.
- ◇ Michaelmas Term 2021: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *B6.3 Integer Programming*.
- ◇ Hilary Term 2021: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *B6.2 Optimisation for Data Science*.
- ◇ Michaelmas Term 2020: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *B6.3 Integer Programming*.
- ◇ Hilary Term 2020: OxNet Lectures on Optimisation in Machine Learning.
- ◇ Hilary Term 2020: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Convex Optimisation*. 8h lecture course on first order methods in convex optimisation for MSc in Mathematical and Computational Finance and for the CDT Mathematics of Random Systems. New course.
- ◇ Michaelmas Term 2019: DOCTORAL TRAINING CENTRE FOR INDUSTRIALLY FOCUSED MATHEMATICS, Oxford, UK. *Optimisation*. 4 contact-hour reading course (newly developed).
- ◇ Michaelmas Term 2019: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Integer Programming*. 16h lecture course for Part B undergraduates in Mathematics, Maths & Statistics, and Maths & Computer Science, MMSC MSc and MFoCS MSc.
- ◇ Hilary Term 2019: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Numerical Analysis*. 16h lecture course for Part A undergraduates in Mathematics, Maths & Statistics, and Maths & Computer Science.
- ◇ Hilary Term 2019: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Optimisation*. 8h lecture course on optimisation theory for MSc in Mathematical and Computational Finance.
- ◇ Michaelmas Term 2018: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Integer Programming*. 16h lecture course for Part B undergraduates in Mathematics, Maths & Statistics, and Maths & Computer Science.

- ◇ Trinity Term 2018: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Constructive Mathematics*. 8h lecture course for Prelims undergraduates in Mathematics.
- ◇ Hilary Term 18: ALAN TURING INSTITUTE, London, UK. *Delayed Column Generation in Large Scale Integer Optimization Problems*. ATI Master Class on Optimisation. 4h lecture course for 1st year PhD students. New course.
- ◇ Michaelmas Term 2017: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Integer Programming*. 16h lecture course for Part B undergraduates in Mathematics, Maths & Statistics, and Maths & Computer Science.
- ◇ Hilary Term 2017: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Optimisation Part II*. 8h lecture course on optimisation theory for MSc in Mathematical and Computational Finance.
- ◇ October 2016: ALAN TURING INSTITUTE OF DATA SCIENCE, London, UK. *Masterclass in Discrete Optimization*. 4h lecture course for 1st year PhD students. New course.
- ◇ Michaelmas Term 2016: NOMURA CENTRE FOR MATHEMATICAL FINANCE, Oxford, UK. *Optimisation Part I*. 5h lecture course for MSc in Mathematical Finance and MSc in Computational and Mathematical Finance.
- ◇ Michaelmas Term 2016: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Integer Programming*. 16h lecture course for Part B undergraduates in Mathematics, Maths & Statistics, and Maths & Computer Science.
- ◇ Hilary Term 2015: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Optimisation Part II*. 8h lecture course on optimisation theory for MSc in Mathematical and Computational Finance. New course.
- ◇ Michaelmas Term 2014: DOCTORAL TRAINING CENTRE FOR INDUSTRIALLY FOCUSED MATHEMATICS, Oxford, UK. *Discrete Models*. 6 lectures. New course.
- ◇ Michaelmas Term 2014: NOMURA CENTRE FOR MATHEMATICAL FINANCE, Oxford, UK. *Optimisation Part I*. 5h lecture course for MSc in Mathematical Finance and MSc in Mathematical and Computational Finance.
- ◇ Michaelmas Term 2014: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Integer Programming*. 16h lecture course for 3rd year undergraduates in mathematics.
- ◇ Trinity Term 2014: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Constructive Mathematics*. 8h lecture course for first year mathematicians (Moderations), first course in algorithms.
- ◇ Michaelmas Term 2013: NOMURA CENTRE FOR MATHEMATICAL FINANCE, Oxford, UK. *Conic Optimization Models in Finance*. 5h lecture course for Part-time M.Sc. in Mathematical Finance.
- ◇ Michaelmas Term 2013: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Integer Programming*. 16h lecture course for 3rd year undergraduates in mathematics.
- ◇ Trinity Term 2013: UNIVERSIDADE DO PORTO, Porto, Portugal. *Optimization Practice in the Financial Industry*. 3h Special Topics Course at the Vth Porto Meeting on Mathematics for Industry.
- ◇ Hilary Term 2013: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Continuous Optimisation*. 16h lecture course for 4th year undergraduates in mathematics.
- ◇ Michaelmas Term 2012: NOMURA CENTRE FOR MATHEMATICAL FINANCE, Oxford, UK. *Conic Optimization Models in Finance*. 5h lecture course for Part-time M.Sc. in Mathematical Finance.
- ◇ Michaelmas Term 2012: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Integer Programming*. 16h lecture course for 3rd year undergraduates in mathematics.
- ◇ Trinity Term 2012: NATCOR Course on Convex Optimisation, Brunel University, London, UK. *Nesterov's First Order Method for Smooth and Nonsmooth Convex Programming*. 2h special topic lecture course for PhD students. New course.
- ◇ Hilary Term 2012: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Continuous Optimisation*. 16h lecture course for 4th year undergraduates in mathematics.
- ◇ Michaelmas Term 2011: NOMURA CENTRE FOR MATHEMATICAL FINANCE, Oxford, UK. *Conic Optimization Models in Finance*. 5h lecture course for Part-time M.Sc. in Mathematical Finance.
- ◇ Michaelmas Term 2011: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Integer Programming*. 16h lecture course for 3rd year undergraduates in computer science and/or mathematics.
- ◇ Trinity Term 2011: OXFORD MAN INSTITUTE, Oxford, England. *Robust Methods in Quantitative Fund Management*. 12h lecture course for senior quant researchers at Man AHL, Oxford Man Institute and Man Group London, UK. New course.
- ◇ Hilary Term 2011: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Continuous Optimisation*. 16h lecture course for 4th year undergraduates in mathematics.

- ◇ Michaelmas Term 2010: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Integer Programming*. 16h lecture course for 3rd year undergraduates in computer science and/or mathematics.
- ◇ Michaelmas Term 2010: NOMURA CENTRE FOR MATHEMATICAL FINANCE, Oxford, UK. *Optimization in Finance*. 6h lecture course for Part-time M.Sc. in Mathematical Finance.
- ◇ Trinity Term 2010: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Optimisation Methods in Finance*. 12h lecture course for MSc in Mathematical and Computational Finance.
- ◇ Michaelmas Term 2009: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Integer Programming*. 16h lecture course for 3rd year undergraduates in computer science and/or mathematics.
- ◇ Michaelmas Term 2009: NOMURA CENTRE FOR MATHEMATICAL FINANCE, Oxford, UK. *Optimization Models in Finance*. 6h lecture course for Part-time M.Sc. in Mathematical Finance.
- ◇ Trinity Term 2009: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Optimization in Finance*. 12h lecture course for M.Sc. in Mathematical and Computational Finance.
- ◇ Hilary Term 2009: OXFORD COMPUTING LABORATORY, Oxford, UK. *Integer Programming*. 16h lecture course for 3rd year undergraduates in computer science and/or mathematics.
- ◇ Hilary Term 2009: OXFORD UNIVERSITY, Oxford, UK. Taught Course Centre, Mathematical Institute: Lecturing 6h optimisation module of the course *Numerical Linear Algebra and Optimization*, PhD level course broadcast via the internet to University of Warwick, Imperial College, University of Bristol, and the University of Bath.
- ◇ Trinity Term 2008: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. *Optimization Models in Finance*. 12h lecture course for the M.Sc. in Mathematical and Computational Finance.
- ◇ Trinity Term 2008: NOMURA CENTRE FOR MATHEMATICAL FINANCE, Oxford, UK. *Optimization in Finance*. 6h lecture course for the part-time M.Sc. in Mathematical Finance (executive programme).
- ◇ Hilary Term 2008: OXFORD UNIVERSITY, Oxford, UK. Taught Course Centre, Mathematical Institute: Lecturing 6h optimisation module of the course *Numerical Linear Algebra and Optimization*, PhD level course broadcast via the internet to University of Warwick, Imperial College, University of Bristol, and the University of Bath. New course.
- ◇ Michaelmas Term 2007: OXFORD COMPUTING LABORATORY, Oxford, UK. *Integer Programming*. 16h lecture course for 3rd year undergraduates in computer science and/or mathematics.
- ◇ Trinity Term 2007: OXFORD UNIVERSITY, Oxford, UK. Oxford Centre for Industrial and Applied Mathematics (OCIAM): Lecturing *Conic Optimization in Finance* & Workshop on Conic Programming, Part time M.Sc. in Mathematical Finance. New 12h course.
- ◇ Trinity Term 2007: OXFORD UNIVERSITY, Oxford, UK. Computing Laboratory and OCIAM: *Optimization in Finance*. 16h special topic course for M.Sc. in Mathematical Modelling and Scientific Computing.
- ◇ September 2006: OXFORD UNIVERSITY, Oxford, UK. Oxford Centre for Industrial and Applied Mathematics (OCIAM): *Optimization in Finance*, 6h lecture course for the part time M.Sc. in Mathematical Finance (executive programme).
- ◇ Michaelmas Term 2006: OXFORD COMPUTING LABORATORY, Oxford, UK. *Integer Programming*. 16h lecture course for 3rd year undergraduates in computer science and/or mathematics.
- ◇ Trinity Term 2006: OXFORD UNIVERSITY, Oxford, UK. Computing Laboratory and OCIAM: Lecturing *Optimization in Finance*, special topic course for M.Sc. in Mathematical Modelling and Scientific Computing and M.Sc in Applied and Computational Mathematics. New course.
- ◇ Michaelmas Term 2005: OXFORD UNIVERSITY, Oxford, UK. Computing Laboratory: Lecturing *Integer Programming*, Part B course for 3rd year undergraduates in computer science and/or mathematics.
- ◇ Hilary Term 2005: OXFORD UNIVERSITY, Oxford, UK. Computing Laboratory: Lecturing *Integer Programming*, Part B course for 3rd year undergraduates in computer science and/or mathematics. New course.
- ◇ Hilary Term 2005: OXFORD UNIVERSITY, Oxford, UK. Mathematical Institute: Lecturing *Continuous Optimization*, Section C course for 4th year undergraduates in mathematics.
- ◇ Trinity Term 2004: OXFORD UNIVERSITY, Oxford, UK. Computing Laboratory: Lecturing *Symmetric Cones*, advanced special topic course for D.Phil. students in numerical analysis. New course.
- ◇ Hilary Term 2004: OXFORD UNIVERSITY, Oxford, UK. Computing Laboratory and OCIAM: Lecturing *Interior-Point Methods*, special topic course for M.Sc. in Mathematical Modelling and Scientific Computing and M.Sc in Applied and Computational Mathematics. New course.

- ◇ Hilary Term 2004: OXFORD UNIVERSITY, Oxford, UK. Mathematical Institute: Lecturing *Introduction to Continuous Optimisation* (Paper c10) for 4th year undergraduates in mathematics.
- ◇ Trinity Term 2003: OXFORD UNIVERSITY, Oxford, UK. Computing Laboratory: Lecturing *Convex Analysis*, special topic course for D.Phil. students. New course.
- ◇ Hilary Term 2003: OXFORD UNIVERSITY, Oxford, UK. Mathematical Institute: Lecturing *Introduction to Continuous Optimisation* (Paper C10) for students in the Honour School of Mathematics.
- ◇ Trinity Term 2002: OXFORD UNIVERSITY, Oxford, UK. Computing Laboratory and OCIAM: Lecturing *Nonlinear Optimization*, special topic course for M.Sc. in Mathematical Modelling and Scientific Computing and M.Sc in Applied and Computational Mathematics. New course.
- ◇ April 2002: SANTA CLARA UNIVERSITY, Santa Clara, Cuba. Dept. Math. and Comp.: Spring-school graduate course in interior-point methods. New course.
- ◇ Hilary Term 2002: OXFORD UNIVERSITY, Oxford, UK. Mathematical Institute: Lecturing *Introduction to Continuous Optimisation* (Paper c10) for 4th year undergraduates in mathematics, 16h. New course.
- ◇ 1991–1993: ABENDTECHNIKUM DER INNERSCHWEIZ, Lucerne, Switzerland. Throughout my undergraduate university studies I earned my living expenses by carrying out a variety of jobs, notably supply teaching of physics at high school level, and by lecturing *Calculus I–IV* and *Linear Algebra I&II* at the Faculty of Mechanical Engineering of ATIS.

Tutorial Teaching

- ◇ October 2007–present: PEMBROKE COLLEGE OXFORD, Oxford, UK (144h of paired tutorials per annum): Probability (Prelims), Probability (Part A), Statistics and Data Analysis (Prelims), Statistics (Part A), Calculus of Variations (Part A), Numerical Analysis (Part A), Dynamics (Prelims), Fourier Series and PDEs (Prelims), Waves and Diffusion (Part A), Differential Equations I (Part A), Differential Equations II (Part A), Multivariable Calculus (Part A), Classical Mechanics (Part A), Optimization (Prelims), Constructive Mathematics (Prelims),
- ◇ October 2007 – present: OXFORD MATHEMATICAL INSTITUTE, Oxford, UK. Intercollegiate classes in Continuous Optimisation (Part C), Integer Programming (Part B).
- ◇ October 2001–2007: PEMBROKE COLLEGE OXFORD, Oxford, UK (144h of paired tutorials per annum): Non-physical applied mathematics, physical applied mathematics, mathematical methods and models, differential and integral equations, probability theory, statistics and linear programming for first and second year students in mathematics, and real analysis of visiting students.
- ◇ October 2001–2007: DEPARTMENT OF STATISTICS, UNIVERSITY OF OXFORD, Oxford, UK. Intercollegiate classes in Combinatorial Optimisation (Part C and 1st year doctoral students).
- ◇ Lent Term 2000: UNIVERSITY OF CAMBRIDGE, Cambridge, UK. Department of Applied Mathematics and Theoretical Physics. Tutorials in *Numerical Analysis Part II*.
- ◇ 1995–1999: SCHOOL OF OPERATIONS RESEARCH AND INDUSTRIAL ENGINEERING, CORNELL UNIVERSITY, Ithaca, USA. During my doctoral studies I supported myself by teaching tutorials in Game Theory (undergraduate level) and Statistics (1st year PhD level) .

Examining

Doctoral Examiner

- ◇ Constantin Puiu, Oxford Mathematical Institute, 2024. “Natural Gradient Algorithms for Training Deep Neural Networks”.
- ◇ Ilan Price, Oxford Mathematical Institute, 2024. “Topics in Sparse and Low-dimensional Deep Learning”.
- ◇ Florentin Goyens, Oxford Mathematical Institute, 2022. “A Riemannian Perspective on Matrix Recovery and Constrained Optimization”.
- ◇ Spyridon Pougkakiotis, PhD in Mathematics, The University of Edinburgh, 2022. “Regularized Interior Point Methods for Convex Programming”.
- ◇ Shen Zhao, Oxford Mathematical Institute, 2021. “On Random Embeddings and Their Application to Optimisation”.

- ◇ Adilet Otemissov, Oxford Mathematical Institute, 2020. “Dimensionality Reduction Techniques for Global Optimization”.
- ◇ Jake Walvin, PhD in Mathematics, University of Manchester, UK, Sep 2018.
- ◇ Dong Li, “Robust Optimization with Applications in Supply Chain Management”. Said Business School Oxford. Spring 2016.
- ◇ Maria Bazzi, Mathematical Institute, Oxford, Spring 2015. (Community detection in networks applied to finance.)
- ◇ External PhD examiner of Martin Takác, University of Edinburgh, April 2014. (Mathematical optimisation in big data applications.)
- ◇ Jan Witte, Mathematical Institute, Oxford, Jan 2012. (Options pricing.)
- ◇ Patrick Hewlett, Mathematical Institute, Oxford, Nov 2011. (Order book mechanics and liquidation problems.)
- ◇ Jaroslav Fowkes, Mathematical Institute, Oxford, June 2011. (Surrogate methods.)
- ◇ Xiaodong Luo, Mathematical Institute, Oxford University, November 2009. (Kalman ensemble filtering.)
- ◇ Max Jensen, OUCL NA Group, Oxford, February 2005. (Worked on adaptive Galerkin finite element methods for Friedrichs systems.)
- ◇ Colin Percival, OUCL PR Group, Oxford, January 2005. (Worked on string matching algorithms and applications in distributing software updates.)
- ◇ Lehel Banjai, OUCL NA Group, Oxford, September 2003. (Worked on numerical Schwartz-Christoffel mapping and the spectral method for solving PDEs.)
- ◇ Shawn Rusaw, OUCL PR Group, Oxford, July 2002. (Worked on non-smooth analysis in robotics.)

DPhil Transfer and Confirmation Examiner

- ◇ Kate Zhu, Oxford Mathematical Institute, 2023. “Tensor Methods for Nonconvex Optimization”.
- ◇ Satoshi Hayakawa, Oxford Mathematical Institute, 2023. “Random Convex Hulls, Kernel Quadrature, and Applications to Bayesian Numerical Methods”.
- ◇ Alain Rossier, Oxford Mathematical Institute, 2022. “Asymptotic Analysis of Deep Learning Algorithms”.
- ◇ Saad Labyad, Oxford Mathematical Institute, 2021. “Statistical Modeling in Market Microstructure”.
- ◇ Christoph Hoeppeke, Oxford Mathematical Institute, 2020. “An optimal control approach to Formula One lap simulation”.
- ◇ Ke Yu, Said Business School Oxford, 2020. “Statistical Depth for Matrix Manifolds”.
- ◇ David Martinez, “Optimization Algorithms for Machine Learning: Acceleration and Geometry”. Nov 2019. Transfer assessment.
- ◇ Adilet Otemissov, “Dimensionality Reduction in Global Optimization”. Oct 2019. Confirmation viva.
- ◇ Charles Millard, “An Approximate Message Passing Algorithm for Rapid Parameter-Free Compressed Sensing MRI”. Transfer assessment Sep 2019, Confirmation Assessment Dec 2020.
- ◇ Yufei Zhang, “Numerical methods for stochastic control problems with nonlinear expectations”. Jan 2019. Confirmation viva.
- ◇ Florentin Goyens, “Nonlinear Matrix Completion”. Dec 2018. Transfer assessment.
- ◇ Michael Murray. “Towards a better understanding of Deep Learning”. Dec 2018. Transfer assessment.
- ◇ Simon Vary, “Multi-Spectral Sparse Sampling”. InFoMM CDT, Oxford Mathematical Institute. Sept 2017. Transfer assessment.
- ◇ Lindon Roberts, “Derivative-Free Optimisation Algorithms for Least-Squares Problems”. InFoMM CDT, Oxford Mathematical Institute. Sept 2017. Transfer assessment.
- ◇ Bogdan Toader, “Source Reconstruction from Hydrophone Data”. InFoMM CDT, Oxford Mathematical Institute. Sept 2017. Transfer assessment.
- ◇ Fan Wang, “...”. University of Oxford, Statistics Department. 2014 & 2015. Transfer assessment.
- ◇ Mohsin Javed, “...”. Oxford Mathematical Institute. 2013. Transfer assessment.
- ◇ Dong Li, “Robust Optimization with Applications in Supply Chain Management”. Said Business School Oxford. Transfer of Status viva 2013. Confirmation of Status viva Oct 2015.

- ◇ Jan Witte, OCIAM. 2009.
- ◇ Jaroslav Fowkes, OUCL. 2008.
- ◇ Chin-Yun Chang, OUCL Programming Research Group, Oxford, November 2007. (Worked on genetic algorithms for alternative splicing.)
- ◇ Patrick Hewlett, Mathematical Finance Group, OCIAM. 2006.
- ◇ Christoph Ortner, OUCL NA Group, Oxford, June 2004. (Worked on the numerical simulation of crack propagation in alloys.)
- ◇ Sue Dollar, OUCL NA Group, Oxford, November 2003. (Worked on Schilders factorisation based preconditioners for saddle-point problems.)
- ◇ Andris Lasis, OUCL NA Group, Oxford, September 2003. (Worked on adaptive finite-element methods.)

MSc Examiner

- ◇ Chairman of Examiners of the MSc in Mathematical Modelling and Scientific Computing, 2010–2011.
- ◇ Examiner for MSc in Mathematical Modelling and Scientific Computing and for MSc in Applied & Computational Mathematics, OUCL and OCIAM, 2003–2006, and 2008–2011. Includes setting, checking and marking tests, and vivaing 10 students per year on their MSc theses.

Undergraduate Examiner

- ◇ Part B Examiner, 2023–2024, Oxford Mathematical Institute.
- ◇ External Examiner BSc Mathematics, BSc Mathematics and Statistics with Management, BSc Financial Computing, BSc Financial Mathematics, BSc Mathematics with Computer Science, MMATHs Mathematics, MMATHs Financial Mathematics, Oct 2013 – Sep 2017, Brunel University, London, England.
- ◇ Part C Examiner, Oct 2016 – Sep 2017, University of Oxford, England.
- ◇ Part B Examiner, Oct 2013 – Sep 2016, University of Oxford, England.

Administrative Service

Service to Professional Bodies

- ◇ Member of the NATCOR Executive Committee, Sept 2014 – 2019.
- ◇ Secretary of FoCM, Aug 2002 – 2005.
- ◇ Board member of FoCM, Aug 2002 – 2005.
- ◇ Member of FoCM Council, Aug 2005 – 2011.

Editorial Service

- ◇ Associate Editor of *TOP*, Nov 2019 – present.
- ◇ Associate Editor of *SIAM J. Optim.*, January 2005 – December 2010.
- ◇ Regular referee for *SIAM J. Optim.*, *Math. Program.*, *IMA J. Numer. Anal.*, *Found. Comput. Math.*, *Applied Mathematical Finance*, *SIAM J. Numer. Anal.*, CUP, Journal of Statistical Physics and various other.
- ◇ Member of the EPSRC Peer Review Panel.

Conference and Workshop Organisation

- ◇ Co-Organiser of the Alan Turing Institute scoping workshop “Distributed machine learning and optimization”, ICMS Edinburgh, 25-27 Nov 2015.
- ◇ 1-Day Workshop on Portfolio Optimization, Oxford Man Institute, March 2014.
- ◇ International Symposium on Combinatorial Optimization 2012, Said Business School Oxford, Member of the Organising Committee.

- ◇ Co-organiser of the Conic Optimization stream at ISMP 2012 in Berlin.
- ◇ Co-organiser of continuous optimisation workshop, FoCM 2011, Budapest.
- ◇ Co-organiser of the stream “Conic Optimization” at ISMP 2009 in Chicago.
- ◇ Co-organiser of optimisation workshop, FoCM 2008, Hong Kong.
- ◇ Co-organiser of conic optimisation stream, ICCOPT-MOPTA 2007, Hamilton, Ontario.
- ◇ Session organiser at ISMP 2006, Rio de Janeiro.
- ◇ Co-organiser of optimization stream at EURO 2006, Reykjavik.
- ◇ Co-organiser of optimization workshop, FoCM 2005, Santander.
- ◇ Regular organiser of Optbridge optimization workshops.
- ◇ Helper at ICM 94 in Zürich: organised distribution of travel funds to mathematicians from the former Soviet Union; translator for the conference secretary (Russian–German).

Service to the University of Oxford

- ◇ Education Committee (Mar 2025 – Mar 2026).
- ◇ General Purposes Committee (GPC) (Mar 2025 – Mar 2026).
- ◇ Planning & Resources Allocation Committee (PRAC) (Mar 2025 – Mar 2026).
- ◇ People Committee (Mar 2025 – Mar 2026).
- ◇ Research & Innovation Committee (RIC) (Mar 2025 – Mar 2026).
- ◇ Council (Mar 2025 – Mar 2026).
- ◇ Information and Digital Committee (Mar 2025 – Mar 2026).
- ◇ Administration Portfolio Committee (Mar 2025 – Mar 2026).
- ◇ Curators of the University Parks (Mar 2025 – Mar 2026).
- ◇ Curators of the Sheldonian Theatre (Mar 2025 – Mar 2026).
- ◇ Vision Zero Working Group (Mar 2025 – Mar 2026).
- ◇ Transport Planning Working Group (Mar 2025 – Mar 2026).
- ◇ Social Sciences Divisional Board (Mar 2025 – Mar 2026).
- ◇ College Accounts Committee (Mar 2025 – Mar 2026).
- ◇ Budget Planning Subcommittee (Mar 2025 – Mar 2026).
- ◇ Academic Opportunities Fund Management Group (Mar 2025 – Mar 2026).
- ◇ Finance Committee (Mar 2025 – Mar 2026).
- ◇ Ethical Investment Representations Review Subcommittee (EIRRS) (Mar 2025 – Mar 2026).
- ◇ Investment Committee (IC) (Mar 2025 – Mar 2026).
- ◇ Services Subcommittee (Mar 2025 – Mar 2026).
- ◇ Strategic Capital Steering Group (Mar 2025 – Mar 2026).
- ◇ College Contributions Committee (Mar 2025 – Mar 2026).
- ◇ Joint Resource Allocation Advisory Board (JRAAB) (Mar 2025 – Mar 2026).
- ◇ Joint Fees and Student Support Advisory Group (JFSSAG) (Mar 2025 – Mar 2026).
- ◇ Joint Panel on Remission of Fees (JPRF) (Mar 2025 – Mar 2026).
- ◇ Enhanced Bursaries (Mar 2025 – Mar 2026).
- ◇ Oxford Bursary Scheme (Mar 2025 – Mar 2026).
- ◇ Prendergast Bequest Board of Management (Mar 2025 – Mar 2026).
- ◇ University Financial Assistance Committee (UFAC) (Mar 2025 – Mar 2026).
- ◇ Oxford Staff Pension Scheme (OSPS Pensions) (Mar 2025 – Mar 2026).
- ◇ USS Working Group (Mar 2025 – Mar 2026).
- ◇ Student Life Subcommittee (Mar 2025 – Mar 2026).
- ◇ Sports Strategic Subcommittee (SSSC) (Mar 2025 – Mar 2026).
- ◇ Sexual Misconduct Steering Group (Mar 2025 – Mar 2026).

- ◇ Equality & Diversity Panel (Mar 2025 – Mar 2026).
- ◇ Joint Student Mental Health Committee (Mar 2025 – Mar 2026).
- ◇ Prevent (Mar 2025 – Mar 2026).
- ◇ Welfare Forum (Mar 2025 – Mar 2026).
- ◇ Joint Committee on Equality, Diversity and Inclusion (JEDI) (Mar 2025 – Mar 2026).
- ◇ Conference of Colleges (Mar 2025 – Mar 2026).
- ◇ Permanent Private Hall Supervisory Committee (PPHSC) (Mar 2025 – Mar 2026).
- ◇ Honorary Degrees Committee (Mar 2025 – Mar 2026).
- ◇ Benefices Delegacy (Mar 2025 – Mar 2026).
- ◇ Congregation (Since Sep 2001).
- ◇ Committee for the Proctors' Office (Mar 2025 – Mar 2026).
- ◇ Clubs Committee (Mar 2025 – Mar 2026).
- ◇ College Deans (Mar 2025 – Mar 2026).
- ◇ JCR/MCR (Mar 2025 – Mar 2026).
- ◇ Delegates for Military Instruction (Mar 2025 – Mar 2026).
- ◇ Delegates of the University Press OUP (Mar 2025 – Mar 2026).
- ◇ Part B Examiners Committee (2023-2024).
- ◇ Director of Graduate Studies for Teaching (DGS-T), Oxford Mathematical Institute, 2017 – 2020.
- ◇ Executive Committee (ex officio), Oxford Mathematical Institute, 2017 – 2020.
- ◇ Graduate Admissions and Awards Committee (ex officio), Oxford Mathematical Institute, 2017 – 2020.
- ◇ MSc in Mathematical Modelling and Scientific Computing (MMSC) Supervisory Committee (ex officio), Oxford Mathematical Institute, 2017 – 2020.
- ◇ MSc in Mathematics and Foundations of Computer Science (MFOCS) Supervisory Committee (ex officio), Oxford Mathematical Institute, 2017 – 2020.
- ◇ MSc in Mathematical and Computational Finance (MCF) Supervisory Committee (ex officio), Oxford Mathematical Institute, 2017 – 2020.
- ◇ MSc in Mathematical Finance (MF) Supervisory Committee (ex officio), Oxford Mathematical Institute, 2017 – 2020.
- ◇ MSc Oxford Master in Mathematical Sciences (OMMS) Supervisory Committee (ex officio), Oxford Mathematical Institute, 2017 – 2020.
- ◇ Centre of Doctoral Training in PDEs Management Committee (ex officio), Oxford Mathematical Institute, 2017 – 2020.
- ◇ Centre of Doctoral Training in Industrially Focussed Mathematical Modelling Steering Committee (ex officio), Oxford Mathematical Institute, 2017 – 2020.
- ◇ Graduate Studies Committee (Chair, ex officio), Oxford Mathematical Institute, 2017 – 2020.
- ◇ Consultative Committee for Graduate Students (ex officio), Oxford Mathematical Institute, 2017 – 2020.
- ◇ Research Committee (ex officio), Oxford Mathematical Institute, 2017 – 2020.
- ◇ Department Committee (ex officio), Oxford Mathematical Institute, 2017 – 2020.
- ◇ Nominations Committee (ex officio), Oxford Mathematical Institute, 2017 – 2020.
- ◇ Nominations of Examiners Committee (ex officio), Oxford Mathematical Institute, 2017 – 2020.
- ◇ Selection Committee of Hooke Fellowships, 2018 – present.
- ◇ Teaching Awards Committee (ex officio), Oxford Mathematical Institute, 2017 – 2020.
- ◇ Faculty Committee, Oxford Mathematical Institute, 2009 – present.
- ◇ Teaching Committee (ex officio), Oxford Mathematical Institute, 2017 – present.
- ◇ Convenor of the Numerical Analysis Teaching Panel, Oxford Mathematical Institute, 2017 – present.
- ◇ OMMS Admissions Committee, Oxford Mathematical Institute, 2018 – present.
- ◇ MPLS Educational Committee (ex officio), Mathematical Physical and Life Sciences Division, University of Oxford, 2017 – 2020.

- ◇ MPLS Education Audit Committee, Mathematical Physical and Life Sciences Division, University of Oxford, 2019 – present.
- ◇ MPLS Graduate Schools Committee (ex officio), Mathematical Physical and Life Sciences Division, University of Oxford, 2017 – 2020.
- ◇ MPLS Researcher Training Forum (ex officio), Mathematical Physical and Life Sciences Division, University of Oxford, 2017 – 2020.
- ◇ Hiring Committee for an Assistant Professorship in Data Science, Oxford Mathematical Institute 2017.
- ◇ Hiring Committee for an Associate Professorship in Operations Research, Said Business School, Oxford 2016/17.
- ◇ Hiring Committee for an Associate Professorship in Operations Research, Said Business School, Oxford 2015/16.
- ◇ Hiring Committee for an Associate Professorship in Algebra, Oxford Mathematical Institute 2014/15.
- ◇ Hiring Committee for an Assistant Professorship in Optimization, Oxford Mathematical Institute 2012/13.
- ◇ Supervisory Committee for the MSc in Mathematical and Computational Finance, Sept 2007 – 2014.
- ◇ Admissions Committee for MSc in Mathematical Modelling and Scientific Computing” and MSc in Applied and Computational Mathematics, OUCL and OCIAM, Oxford, October 2002 – 2005, includes interviewing ca 50 candidates each year.
- ◇ Supervisory Committee of the MSc in Mathematical Modelling and Scientific Computing, and of the MSc in Applied and Computational Mathematics. 2002 – 2005.
- ◇ IT Fellows Committee, 2001 – present.
- ◇ Working Group for a new CS Degree. 2002 – 2005.
- ◇ Undergraduate Teaching Panel, October 2002 – 2005.
- ◇ Representing MSc programmes of OUCL and OCIAM at Forum Centrale Paris, November 2004 & 2005.

Service to the Alan Turing Institute of Data Science, London

- ◇ PhD Admissions, 2016 – 2018.

Service to Pembroke College Oxford

- ◇ Vicegerent (MT 2022 - TT 2024).
- ◇ Senior Leadership Team (MT 2022 – TT 2024).
- ◇ Senior Mathematics Tutor (2001 – present).
- ◇ Computing Fellow (June 2002 – 2018).
- ◇ Dean of Pembroke College (2011–2012).
- ◇ Deputy Dean (Trinity Term 2002, 2010–2011).
- ◇ Deputy Dean of Degrees (Hilary Term 2008 – 2021).
- ◇ Governing Body (2001 – present).
- ◇ Space and Sustainability Committee (2021 - 2024)
- ◇ Staff Committee (2021 - 2023)
- ◇ Staff and Operations Committee (2023 - 2024)
- ◇ Governance Committee (2021 - 2024)
- ◇ Fellowship Committee (2016 - 2024)
- ◇ Communications Working Group (2019 - 2022).
- ◇ College Officer’s Group (2021 - 2024).
- ◇ Access and Admissions Advisory Group (2020 - 2021).
- ◇ Finance and Planning Committee (MT 2014 – TT 2018, MT 2021 – TT 2024) .
- ◇ IT Fellows Committee (2002 - 2018)
- ◇ Investment Committee (MT 2008 – TT 2014).

- ◇ Computing Committee (2002 – 2010).
- ◇ Website Steering Group (2004 – 2020).
- ◇ Communications Committee (2013 – 2021).
- ◇ Welfare Committee (2010 – 2012).
- ◇ Buildings Committee (2011 – 2012).
- ◇ Domestic Committee (2011 – 2012).
- ◇ Standing Committee (2009 – 2010, 2018 – present).
- ◇ New Build Steering Committee (Hilary Term 2008 – 2010).
- ◇ Academic Committee (2001 – 2008, 2021 - 2024).
- ◇ Hiring Committees for Fellows in Pure Mathematics, Biochemistry, Law.
- ◇ Regularly heading up Hiring Committees for the appointment of Stipendiary Lecturers in Mathematics.
- ◇ Participation in fund-raising and alumni-relations events.
- ◇ College representative at Technos International Week 2005, a two-week liaisons event at Technos International College, Tokyo.