

Curriculum Vitae
Professor Jonathan Edward Fieldsend

Work address Computer Science, Faculty of Environment, Science and Economy,
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Education 1999-03 **PhD:** Computer Science, University of Exeter, UK
1998-99 **MSc:** Computational Intelligence, Plymouth University, UK
1995-98 **BA:** Economics, Durham University, UK

Employment 2020-pres **Professor of Computational Intelligence:** University of Exeter, UK
2016-2020 **Associate Professor:** University of Exeter, UK
2014-2016 **Senior Lecturer:** University of Exeter, UK
2004-2006 **Lecturer:** University of Exeter, UK
2005-2006 **Business Fellow:** University of Exeter, UK
2002-2005 **Research Fellow:** University of Exeter, UK

Research Experience:

I work on the interface of optimisation heuristics and machine learning. This includes both fundamental theoretical advances, as well as solving immediate and near-term problems with partners from industry and the public sector. I have funded research projects with industry, with colleagues in the physical sciences, the biological sciences and the medical sciences, both inside the University of Exeter, nationally, and internationally.

Publications:

- 100+ research papers in international peer-reviewed journals and conferences including articles in IEEE Transactions on Evolutionary Computation, IEEE Transactions on Neural Networks and Learning Systems, ACM Transactions on Evolutionary Learning and Optimization, Soft Computing, IEEE CEC, IEEE IJCNN and ACM GECCO.
- h-index 28, i100-index = 11 (as of June 2023).

Awards:

2014: ACM GECCO, Best Paper Award in Real-World Applications Track.
2013: ACM GECCO, Best Paper Award in Evolutionary Multi-Objective Optimisation Track.
2006: IPSI, Conference Best Paper Award.

Administrative and Line Management Experience:

Undertaken many key administrative roles in the Department of Computer Science at the University of Exeter: Admissions Tutor, Director of Education, Academic Lead, and Director of Research & Impact. Also have served as a staff representative on the University Senate. I am lead for the Optimisation Group in Computer Science.

PhD Theses examination:

I have examined PhD theses from: University of Birmingham (UK), University of Cambridge (UK), Griffith University (Australia), University of Manchester (UK), University of Surrey (UK), Swinburne University of Technology (Australia) and University of Warwick (UK).

Selected Grants/funding obtained (Totals since 2010: as PI ~£1.2M, as Co-I ~£7M):

- 2022: **JDRF**, Improved, cost effective prediction of type 1 diabetes in early life using combined prediction models, **US\$600,00**. McQueen (Colorado PI), **Fieldsend (Exeter PI)**, Oram, Ferrat (Researcher-CI).
- 2020: **Innovate UK**, From RIBA to Reality – Deep Digital Twin to enable Human-Centric Buildings for a Carbon Neutral, **£335,912**, Dodwell (PI), Everson (CI), Eames (CI), **Fieldsend (CI)**.

- 2019: **JDRF**, Improved, cost effective prediction of type 1 diabetes in early life using combined prediction models, **US\$380,760**. Oram (PI), **Fieldsend (CI)**, Ferrat (Researcher-CI).
- 2019: **SPARC UKIERI** Promotion of Academic and Research Collaboration, **£65,000**. Mitra (PI India), Everson (PI UK), **Fieldsend (CI)**.
- 2018: **Innovate UK, EPSRC and Hydro International Ltd**, KTP11477, **£180,584**. **Fieldsend (PI)** and Tabor (CI).
- 2018: **Innovate UK**, Rapid Calibration for Operational and Strategic Twins, **£262,482**. **Fieldsend (PI)** and Everson (CI).
- 2017: **NERC**, BIG data methods for improving windstorm FOOTprint prediction (BigFoot), **£1,530,230**. Challenor (PI), Economu (CI), Everson (CI), **Fieldsend (CI)**, Luo (CI), Stephenson (CI), Williams (CI).
- 2017: **Industry**, PhD research funding **£156k**, Everson (PI), **Fieldsend (CI)**.
- 2016: **EPSRC**. EP/N026683/1: Self-disclosing protective materials using synthetic gene networks, **£648k**. Howard (PI), Fulton (CI), Love (CI), **Fieldsend (CI)**.
- 2016: **EPSRC**. EP/P020224/1 GW4 Tier 2 HPC Centre for Advanced Architectures, **£3M**. McIntosh-Smith (PI), **Fieldsend (CI)**, Akman (CI), Parsons (CI), Whitaker (CI), Wingate (CI), Calleja (CI), Davenport (CI).
- 2016: **EPSRC**. EP/N017846/1: The Parameter Optimisation Problem: Addressing a Key Challenge in Computational Systems Biology, **£599k**. **Fieldsend (PI)**, Akman (CI).
- 2015: **EPSRC**. EP/M017915/1: Data-Driven Surrogate-Assisted Evolutionary Fluid Dynamic Optimisation, **£555k**. Everson (PI), **Fieldsend (CI)**, Tabor (CI).
- 2014: **Knowledge Transfer Partnership - Technology Strategy Board and Lineal Software Solutions Ltd**. KTP009620: Developing a software framework for next generation, integrated and richly featured mobile real-time data management, **£163k**. **Fieldsend (PI)**, Wakeling (CI).
- 2013: **Met Office**. MASS Modelling and Optimisation, **£60k**. Everson (PI), **Fieldsend (CI)**.
- 2011: **Knowledge Transfer Partnership - Technology Strategy Board and IMC group**. KTP008748: Developing a practical, robust, self-optimising and battery powered radio mesh network with long inter-node hop capability, **£131k**. Everson (PI), **Fieldsend (CI)**.

Invited Talks:

I have given invited talks to research groups at the University of Birmingham (2017), University of Manchester (2019), University of Oxford (2005), University of Warwick (2013) and Plymouth University (2016). I gave the Invited Keynote talk to the Metaheuristics track at OR58 (2016).

Professional activities:

- Associate Editor of ACM Transactions on Evolutionary Learning and Optimization
- Associate Editor of IEEE Transactions on Evolutionary Computation
- Editor-in-Chief of ACM GECCO 2022
- On the panel of the ACM SIGEVO best dissertation award: 2021, 2022 & 2023
- Reviewed grant applications for the Engineering and Physical Sciences Research Council (EPSRC, UK), the Royal Society and the Leverhulme Trust in the UK, and also internationally
- Track Chair for the EMO track at ACM GECCO 2019 and 2020.
- On the organising committees of UKCI 2015, AISB 2013 and EA 2022.
- Co-organised numerous international workshops, including the Workshop on Evolutionary Algorithms for Problems with Uncertainty (EAPU) 2018-2020, Workshop on Surrogate-Assisted Evolutionary Optimisation (SAEOpt) 2016-2022 and Workshop on Visualisation in Genetic and Evolutionary Computation (VizGEC) 2012-2019 at ACM GECCO.
- Invited participant in Lorentz Center workshop on Many Criteria Optimization and Decision Analysis (2019), Lorentz Center workshop on Surrogate Assisted Multi-Criterion Optimization (2016), and Dagstuhl workshop on Multiobjective Optimization on a Budget (2023).
- Vice-Chair of the IEEE Computational Intelligence Society Task Forces on Data-Driven Evolutionary Optimization of Expensive Problems, and on Multi-Modal Optimization.