

Jeremias Knoblauch

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Objective

I am reconciling the assumptions underlying Bayesian analysis with the realities of Statistical Machine Learning. To this end, my research generalizes Bayesian uncertainty.

Academic positions

06/2022 - 06/2025 **EPSRC Fellow & Assistant Professor/Lecturer** **University College London**
London, GBR

- Appointment to full-time faculty
- Won a fellowship grant through EPSRC
- bought out of teaching and administrative duties

10/2021 - 06/2022 **Biometrika Fellow** **University College London**
London, GBR

- Senior Research Fellow
- Won my own funding/grant through the Biometrika Trust

Selected Fellowships & Grants

06/2022 - 06/2025 **EPSRC Fellowship** **Engineering and Physical Research Council**
Slough, GBR

- Grant worth **£325,660** to investigate Optimisation-centric Generalisations of Bayesian Inference
- Bought out of teaching and administrative duties

10/2021 - 06/2021 **Biometrika Post-doctoral Fellowship** **Biometrika Trust**
London, GBR

- Grant worth **£122,000** to investigate Generalised Bayesian Inference
- Yearly competitive award for a UK-based young career researcher

09/2019 - 09/2021 **Facebook Fellowship** **Facebook Research (Core Data Science)**
Menlo, USA

- Maintenance \$37,000 p.a., travel expenses \$5,000 p.a., tuition up to \$68,150 p.a.; full award worth **\$212,000**
- First UK-based Facebook fellow
- Global award to 21 out of >1,000 applications based on academic excellence

09/16–09/21 **OxWaSP PhD Fellowship** **EPSRC**
Swindon, GBR

- Covers tuition fees, maintenance £15,254 p.a., travel £1,000 p.a.; full award worth **£86,000**
- Awarded to 10 of >500 applicants to fund their PhD within OxWaSP

09/2019 - 9/2020 **Visiting Researcher Fellowship** **The Alan Turing Institute**
London, GBR

- Maintenance award for contributions to Data-Centric Engineering; **£5,000** p.a.

01/2012 - 09/2016 **Klaus-Murmann Fellowship** **Foundation of German Business**
Berlin, DEU

- Maintenance up to **€18,000** p.a., all tuition; full award worth **€90,000**
- Awarded to <0.05 % of German students for academic & entrepreneurial excellence

Honours & Awards

- 09/2020; 09/2021 **Invitation to the Heidelberg Laureate Forum (HLF)** **HLF**
Heidelberg, DEU
- Awarded to <100 early career researchers around the world
 - Invited to present my work to Laureates in Mathematics and Computer Science
- 05/2018 **Reproducible Research Champions Award** **Alan Turing Institute**
London, GBR
- Reproducibility award by the Alan Turing Institute for published work
 - Awarded time from the institute's software engineering team to refine software

Research Visits

- 01/2020 - 12/2021 **Alan Turing Institute** **Data-Centric Engineering Group**
Permanent relocation from Warwick University to work within the Data-Centric Engineering group; financially supported by a Visiting Researcher Fellowship
- 03/2021 - 08/2021 **Research Internship @ DeepMind London** **Prof. Csaba Szepesvari**
Theory & Foundations Research Team; expected result: publication
- 08/2019 - 12/2019 **Research Internship @ Amazon Cambridge** **Prof. Neil Lawrence**
Supply Chain Optimization Team; results: publication [6]
- 03/2019 - 07/2019 **Duke University** **Prof. David Dunson**
Initiation of an ongoing collaboration on computing generalized posteriors

Selected Talks

Academic institutions: Duke University, Columbia University, Cornell University, New York University's Courant Institute, Oxford University, University of Edinburgh, Alan Turing Institute [One-day workshop series, Data-Centric Engineering Seminar, Rough Paths Group], Lancaster University, Glasgow University, University of Sheffield, Warwick University, Leeds University, Imperial College London, University of Geneva, Continual AI global seminar

Conferences: Heidelberg Laureate Forum 2020, International Conference on Machine Learning (2018, 2020), Advances in Neural Information Processing Systems 2018, Workshop on Computational Strategies for Large-Scale Statistical Data Analysis by the International Centre for Mathematical Sciences in Edinburgh (2018), Gregynog Statistical Conference (2017–2019)

Industry: Amazon Cambridge (GBR), Facebook Research Core Data Science London (GBR) as well as Menlo Park (USA), Google Brain Mountain View (USA), DeepMind (GBR)

Co-Supervision

- Takuo Matsubara, late-stage PhD student at Newcastle University & the Alan Turing Institute, co-supervised a recently published paper at JRSS-B.
- Charita Dellaportas, early-stage PhD student at Warwick University. Co-supervised a recently published paper at AISTATS 2022.
- Ollie Hamelijnck & Juan Maronas, early-stage PhD students at Warwick & the University of Valencia. Co-supervised a published paper at AISTATS 2021.
- Georgios Felekis, MSc Machine Learning at UCL. Co-supervised MSc thesis *Generalised Variational Inference posteriors in Probabilistic Deep Learning*.
- Ioannis Zachos, undergraduate at Warwick University. Co-Supervised BSc thesis *Bayesian On-line Changepoint Detection of Point Processes*, graduated first class and is now a PhD at Cambridge

Services to the community

Reviewing activities: Journal of the Royal Statistical Society Series B (JRSS-B), Journal of Machine Learning Research (JMLR), Transactions on Pattern Analysis and Machine Intelligence (TPAMI), Artificial Intelligence and Statistics (AISTAS), Neural Information Processing Systems (NeurIPS), International Conference on Machine Learning (ICML), International Conference on Learning Representations (ICLR).

Outstanding Reviewer Awards: ICML 2020, ICLR 2020

Organization of reading groups & seminars:

- Optimization Study Group at Warwick (*Lecture Notes on Convex Optimization* by Nesterov), 2018/2019.
- Data-Centric Engineering Seminar Series at the Alan Turing Institute (full archive here: <https://dce-rg.github.io/>), 2019/2020.
- Functional Analysis Study Group at UCL (*An Introduction to Functional Analysis* by James Robinson), 2021.

Notable Experiences outside Research

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| 07/2014 - 09/2015 | Starting player for the Dutch U23 Ultimate Frisbee Team | NFB
Amsterdam, NLD |
| | • Team placed 20th at the 2015 U23 World Cup in London | |
| 06/2011 - 08/2012 | Project Manager | Model UN Baden-Württemberg
Stuttgart, DEU |
| | <ul style="list-style-type: none">• Management of a 5 day conference with 550 participants• €120,000 budget & communication with main sponsor Daimler AG• Delegating 65 staff throughout a year of preparations | |

London, 02/02/2022.

