

Kristopher Torp Jensen

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Computational and Biological Learning Lab

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Education

- 2019 - present **PhD Computational Neuroscience**
University of Cambridge
Supervisor: [Dr Guillaume Hennequin](#)
Analysis and modelling of neural circuit dynamics.
- 2018 - 2019 **MPhil Computational Biology**
University of Cambridge & Harvard Center for Brain Science
Dissertation: "Long-Term Stability of Neural Dynamics
Underlying Stereotyped Behavior"
Result: Distinction (89.1/100; 1st of 19 students)
- 2015 - 2018 **BA Natural Sciences**
University of Cambridge
Specialization: Molecular Biology & Theoretical Chemistry
Result: First Class Honors (82.7/100; 1st of 112 students)

Research

- 2019 - present **Harvard Center for Brain Science**
Supervisor: [Professor Bence Ölveczky](#)
Analysis of the neural stability of motor memories from extracellular recordings.
- 2018 - 2019 **Janelia Research Campus**
Supervisor: [Professor Vivek Jayaraman](#)
Analysis of EM & RNAseq data and biophysical modelling of the fly central complex.
- 2017 - 2018 **Cambridge Centre for Computational Chemistry**
Supervisor: [Dr Alex Thom](#)
Development of a HF-based method for *in silico* modelling of electron transfer reactions.
- 2016 - 2017 **Aarhus University Department of Biomedicine**
Supervisor: [Dr Yonglun Luo](#)
Investigation of factors affecting the efficiency of CRISPR/Cas9 for genome editing.

Teaching

- Neuromatch Academy**
2021 Teaching Assistant – Computational neuroscience
- University of Cambridge**
2020 - 2021 Supervisor (Teaching Assistant) – Mathematical biology (3rd year undergraduate course)
2018 - 2020 Supervisor (Teaching Assistant) – Theoretical chemistry (3rd year undergraduate course)

Invited Talks

- 2021 **MIT Brain and Cognitive Sciences tutorial**
Learning what we know and knowing what we learn: GP priors for neural data analysis
- 2021 **Ölveczky lab (Harvard)**
Scalable Bayesian GPFA
- 2021 **Cambridge Engineering Division F Conference**
Manifold GPLVMs for discovering non-Euclidean latent structure in neural data

Awards

Fellowships & scholarships

- 2019 - present [Cambridge Gates Scholarship](#)
- 2016 - 2019 Scholar of Magdalene College, Cambridge
- 2018 [Janelia Undergraduate Scholar](#)
- 2015 *British Chamber of Commerce in Denmark* Scholar

Prizes

- 2018 GWHP Memorial Prize for best performance in undergraduate chemistry
Gill, Bundy & B.C. Saunders prizes for excellence in university examinations
BP Prize for the best performance in practical chemistry
- 2017 BP Prize for the best performance in theoretical chemistry
Keilin Prize for excellence in university examinations
- 2016 B.C. Saunders Prize for excellence in university examinations

Miscellaneous

- 2015 First place – The Danish National Science Fair (life science)
- 2014 & 2015 Silver medal – The International Chemistry Olympiad
First place – The Scandinavian Chemistry Olympiad

Publications

- 2021 **Kristopher T. Jensen***, Ta-Chu Kao*, Jasmine T. Stone, and Guillaume Hennequin.
[Scalable Bayesian GPFA with automatic relevance determination and discrete noise models.](#)
bioRxiv.
- 2021 Ta-Chu Kao*, **Kristopher T. Jensen***, Alberto Bernacchia, and Guillaume Hennequin.
[Natural continual learning: success is a journey, not \(just\) a destination.](#)
arXiv.
- 2020 **Kristopher T. Jensen**, Ta-Chu Kao, Marco Tripodi, and Guillaume Hennequin.
[Manifold GPLVMs for discovering non-Euclidean latent structure in neural data.](#)
Advances in Neural Information Processing Systems.
- 2020 Daniel B. Turner-Evans, **Kristopher T. Jensen***, Saba Ali*, Tyler Paterson*, Arlo Sheridan*, Robert P. Ray, Tanya Wolff, Gerald M. Rubin, Davi D. Bock, and Vivek Jayaraman.
[The neuroanatomical ultrastructure and function of a biological ring attractor.](#)
Neuron.
- 2018 **Kristopher T. Jensen**, Raz L. Benson, Salvatore Cardamone, and Alex J. W. Thom.
[Modeling electron transfers using quasidiabatic Hartree-Fock states.](#)
Journal of Chemical Theory and Computation.
- 2018 **Kristopher T. Jensen**, Lasse Fløe, Trine S. Petersen, Jinrong Huang, Fengping Xu, Lars Bolund, Yonglun Luo, and Lin Lin.
[Chromatin accessibility and guide sequence secondary structure affect CRISPR-Cas9 gene editing efficiency.](#)
FEBS Letters.

Conferences

- 2021 **Computational and Systems Neuroscience (Cosyne)** (*poster*).
[Beyond the Euclidean brain: inferring non-Euclidean latent trajectories from spike trains.](#)
- 2020 **From Neuroscience to Artificially Intelligent System** (*poster*).
[Self-supervised learning for multisensory integration in biologically inspired networks.](#)
- 2020 **Bernstein Conference** (*contributed talk*).
[mGPLVM – Beyond the Euclidean brain.](#)
- 2018 **Janelia Undergraduate Scholars Symposium** (*poster*).
[Angular velocity integration in *Drosophila melanogaster*.](#)