

# PAVAN CHAGGAR

D.Phil Student ◊ Mathematical Institute ◊ University of Oxford  
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## EDUCATION

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**University of Oxford**, D.Phil, Mathematical Institute 2019 — 2023  
Provisional Title: Data-Driven Mathematical Modelling of Neurodegeneration  
Academic Advisor: Alain Goriely, Saad Jbabdi  
Industrial Advisor: Stefano Magon (Roche), Gregory Klein (Roche)  
Funding: EPSRC CDT in Sustainable Approaches to Biomedical Sciences

**University College London**, M.Sc in Neuroscience 2018 — 2019  
Merit with Distinction in thesis  
Thesis Advisor: Maria Chain, Karl Friston, Gareth Barnes

**King's College London**, B.Sc in Biomedical Sciences 2012 — 2016  
Upper Second Class Honors  
Thesis Advisor: Clive Coen

## RESEARCH INTERESTS

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Differential equations, dynamics, probabilistic inference, scientific machine learning, neurodegenerative disease, neuroscience

## PUBLICATIONS

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(in progress) Prama Putra, Travis B Thompson, and Alain Goriely. Braiding braak and braak: Staging patterns and model selection in network neurodegeneration. *bioRxiv*, 2021

Travis B Thompson, Pavanjit Chaggar, Ellen Kuhl, Alain Goriely, Alzheimer's Disease Neuroimaging Initiative, et al. Protein-protein interactions in neurodegenerative diseases: A conspiracy theory. *PLoS computational biology*, 16(10):e1008267, 2020

## CONFERENCE PRESENTATIONS

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Pavanjit Chaggar. Pryon: Proteopathy modelling on connectomes with python. International Brain Mechanics and Trauma Workshop, April 2021

Roberta Bianco, Pavanjit Chaggar, Rosemary Southwell, Sven Bestmann, Gareth Barnes, and Maria Chait. A brain network of temporo-frontal areas supports pattern detection in rapid sound sequences. Advances and Perspectives in Auditory Neuroscience, August 2020

## INVITED TALKS

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Analysing ADNI sMRI and PET data with SPM. Presented at the UCL Wellcome Trust Centre for Neuroimaging Methods Seminar, July 2020

Optimising MEG source localisation of hippocampal regions. Presented at the UCL Wellcome Trust Centre for Neuroimaging MEG Seminar, July 2019