

PhD position in Computational Neuroscience 'Metastable Cortical Dynamics Underlying Cognition' (Bournemouth University-IDIBAPS Barcelona)

A PhD position is available in the 3-years fully-funded project 'Metastable Cortical Dynamics Underlying Cognition'; based at Bournemouth University (UK) <https://research.bournemouth.ac.uk/centre/interdisciplinary-neuroscience-research/> and at the Biomedical Research Institute August Pi I Sunyer (IDIBAPS, http://www.idibaps.org/en_index.htm, University of Barcelona, Spain).

Do we have analysis tools for discerning neuronal dynamics underlying cognition? This is a fundamental question, touching the very basics of our understanding of neural computation and hence one of the most exciting topics in neuroscience. However, it is a major challenge for current theoretical approaches.

The aim of this project is to provide new theoretical ideas which enables us to discern metastable dynamics in high cognitive areas; this is important for deciding among competing models of cognitive decisions and would be a significant advance in computational and systems neuroscience.

The training possibilities that this interdisciplinary project offers are multiple and relevant in building-up a high-profile as a computational neuroscientist. The student will benefit from the vibrant scientific environment of neural computation and neurosciences at BU <https://research.bournemouth.ac.uk/centre/interdisciplinary-neuroscience-research/> and at the cortical networks lab; embedded in the systems neuroscience network in Barcelona <http://www.sanchez-vives.org/>.

Applicants with enthusiasm for developing new theories and a strong mathematical background are very welcome. Qualifications in either Physics, Computer Science, Engineering, Mathematics or in any similar degree would be very advantageous; as well as previous knowledge or interest in neuroscience, or lab experience.

The researcher would be based at the Faculty of Science, Bournemouth University, working closely with Dr Balaguer-Ballester at the Computational Neuroscience laboratory in the context of the interdisciplinary group for neurosciences; and would spend prolonged periods of time in the Cortical Networks Lab (IDIBAPS, Barcelona) led by Prof Maria Victoria Sanchez-Vives. Thus, this position provides a good opportunity to gain a diverse experience of both neuro-computational and experimental approaches.

For applying and more information please visit <https://www1.bournemouth.ac.uk/study/courses/phd-studentship-metastable-cortical-dynamics-underlying-cognition>

The deadline is on the 28th of November, 2016

For further questions, please contact: eb-ballester@bournemouth.ac.uk: Twitter: @emilibalball