



Two postdoctoral positions on Computational Cognitive Neuroscience of Executive Functions

The Neuropsychology Lab at the University of the Balearic Islands (Mallorca, Spain) is hiring two 1-year full-time post-doctoral research fellows to join a project on Computational Cognitive Neuroscience (CCN) of executive functions.

The project is inspired by the active (Bayesian) inference framework, and aims to quantify contextual information in several (oddball, go/nogo, task-switching) tasks for the assessment of dysexecutive deficits in elderly adults and patients with frontal lobe lesions (e.g., https://doi.org/10.1162/jocn_a_01662).

The job entails modelling and analyses of a large database of behavioral and/or EEG data from elderly healthy controls and brain injured patients, with a special focus on hierarchical Bayesian inference (e.g., Hierarchical Gaussian Filter; Dynamic Causal Modelling), event-related potentials, and/or oscillatory EEG signals. Access to patients' MRI scans will be available in liaison with Professor Robert T. Knight at UC Berkeley (USA). The successful candidates should hold a PhD in Cognitive Neuroscience, Physics, Psychology, or related fields, and should be able to work independently on behavioural and EEG studies.

We request:

- * Solid experience in advanced Bayesian modelling (i.e., HGF, Markov Models);
- * Solid programming skills (e.g., MATLAB, Julia, R, or equivalent);
- * Familiarity with EEG data analyses (i.e., DCM, effective connectivity);
- * Track record of first-author CCN publications: motivation & great writing skills;
- * A theoretical background on executive functions would be a plus.

We offer:

- * Full time dedication to research activities;
- * Outstanding publishing and international networking opportunities;
- * Full access to onsite facilities (computing, EEG/ERP, neuropsych. tools, etc);
- * A gross salary from 27.000 € to 32.000 € /year according with experience;
- * A travel allowance of 1.600€/year for research visits and conferences;
- * Full security coverage (health and accident insurance, paid time off benefits);
- * Supported by the Spanish Research Agency (AEI PID2019-106045GB-I00);
- * The University of the Balearic Islands is an Equal Opportunity Employer.

Suitable candidates should send their updated CV in pdf format, a letter of motivation, and the names and addresses of two referees to Francisco Barceló (f.barcelo@uib.es). The initial appointment is for 1 year, starting February 1st 2024. Selection of candidates and interviews will be ongoing until November 30th 2023, or until the position is filled. Informal inquires from suitable candidates are welcomed. For more information visit: www.mcst.es.