

Three-Year PhD Opening:

Laminar-Resolved Functional Connectivity in the Human Visual Cortex

The position

In the context of the European Training Network “European School of Network Neuroscience” ([euSNN](#)), we are offering a full-time 3-year PhD position for a person with a strong background in computational neuroscience and neuroimaging. The successful applicant will be working in Maastricht at the company Brain Innovation (host institute) in close collaboration with the Maastricht Brain Imaging Center (MBIC) and the Cognitive Neuroscience (CN) department of Maastricht University (UM, partner organization) to conduct sub-millimeter functional fMRI at 7 and 9.4 Tesla. The ultra-high field (UHF) fMRI studies are aimed to unravel laminar-specific connectivity between multiple areas of the visual hierarchy during visual illusions, visual attention and mental imagery tasks. The position involves training in 7+ Tesla fMRI measurements, laminar and columnar data analysis techniques and deep learning tools. The successful applicant will be supervised by Prof. Dr. Rainer Goebel in close collaboration with laminar fMRI researcher Renzo Huber in the MRI Physics section of the CN department of UM. Besides mesoscopic fMRI measurements at ultra-high fields, the work will include active participation to open source software tool development and computational (neural network) modelling. The early stage researcher (ESR) will be enrolled in the MBIC PhD graduate school in Maastricht. Furthermore, the ESR will meet and visit partner organizations of the ETN in Europe to deepen and extend knowledge about connectivity measurement and analysis approaches, and to establish a network with other early stage researchers (ESRs) and institutions.

Our ideal candidate

You will hold a master’s degree in computational or cognitive neuroscience, or related fields like biomedical engineering. Your thesis or internships should be related to research with fMRI, psychophysics, and/or computational modelling demonstrating relevant expertise and problem-solving skills. Preferably you already have experience with programming in Python and/or C++ and have enough experience to develop experimental paradigms, conduct analyses and implement computational models. We also expect that you have well developed interpersonal skills to work in a team.

Want to apply?

If this sounds interesting to you, please send a motivation letter and your CV to r.goebel@maastrichtuniversity.nl, or goebel@brainvoyager.com. The deadline for applications is March 15 with preferred appointment in May to June but not later than September 2020. Applicants need to meet the European Training Network grant eligibility conditions of ESRs, that are described at this web page: <https://infrastar.eu/recruitment/esr-eligibility-conditions-and-responsibilities/>. Most relevant is that all nationalities can apply, but only if the applicant did not reside or carried out main activity (such as work or study) in the Netherlands for more than 12 months within the last 3 years.