

School of Science

The **Faculty of Psychology, Collaborative Research Center (CRC) 940 – Volition & Cognitive Control** – (<https://tu-dresden.de/bereichsuebergreifendes/sfb940>) invites applications for a research position as

Ph.D. student

(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

with 65% of the fulltime weekly hours. The position starts as soon as possible and is initially limited to 3 years. A contract extension for a fourth year is possible. The period of employment is governed by § 2 Fixed Term Research Contracts Act (WissZeitVG).

The position is within the research group „Neuroimaging of Higher Cognitive Brain Function“ led by Hannes Ruge and Uta Wolfensteller. The successful candidate will work on a project which aims to further develop and improve fMRI analysis techniques for characterizing multivariate activity patterns and functional connectivity patterns evolving across time. This methods-oriented project is closely cooperating with other CRC projects which address the question how humans flexibly learn to implement entirely novel behavioral rules acquired via verbal instruction, observation, or trial-and-error using fMRI combined with transcranial magnetic stimulation and builds on extensive previous work conducted in our research group (e.g., Mohr et al., 2016, *Nature Communications*; Ruge et al., 2019, *Elife*; Zwosta et al., 2018, *Neuroimage*).

PhD students are participating in a CRC-funded graduate program including annual spring schools. The neuroscientific studies will be conducted in the Neuroimaging Center Dresden (<http://www.nic-tud.de>) which is equipped with a fully research-dedicated 3T scanner and a state-of-the-art TMS system.

Tasks: The successful candidate will focus specifically on the development and implementation of advanced data analysis techniques for characterizing multivariate activity patterns and functional connectivity patterns, and will publish the findings in international journals.

Requirements: A university degree (master/ diploma or Ph.D.) in Cognitive Neuroscience, Psychology, or similar; strong interest in neuroscientific topics; excellent skills in statistical methods and a strong mathematical background; solid background in fMRI methodology; proficient in English language; Programming skills (e.g., Matlab) as well as prior experience with fMRI or other neuroscientific techniques are required.

For questions about this position please contact the project leader Prof. Dr. Hannes Ruge (hannes.ruge@tu-dresden.de). The TU Dresden is an equal opportunities employer, committed to the advancement of individuals without regard to ethnicity, religion, gender, or disability.

To apply, please include all documents in one PDF-file in the following order: CV, a brief statement describing your personal qualifications and future research interests, contact information for two references. Applications with the subject heading ‘**APPLICATION CRC940 Z2**’ should be sent until **July 31 2020** via email to hannes.ruge@tu-dresden.de.