2018-00390 - Computational Advanced Diffusion MRI

Contract type: Public service fixed-term contract
Level of qualifications required: PhD or equivalent
Other valued qualifications: PhD thesis in computational neuro-imaging.
Function: Post-Doctoral Research Visit

About the research centre or Inria department
The Inria Sophia Antipolis - Méditerranée center counts 37 research teams and 9 support departments. The center's staff (about 600 people including 400 Inria employees) is composed of scientists of different nationalities (250 foreigners of 50 nationalities), engineers, technicians and administrators. 1/3 of the staff are civil servants, the others are contractual. The majority of the research teams at the center are located in Sophia Antipolis and Nice in the Alpes-Maritimes. Six teams are based in Montpellier and a team is hosted by the computer science department of the University of Bologna in Italy. The Center is a member of the University and Institution Community (ComUE) "Université Côte d’Azur (UCA)".

Assignment
Post-Doctoral/Starting Research Position up to 2 years is offered within the framework of the European Research Council (ERC) Advanced Grant CoBCoM: Computational Brain Connectivity Mapping, started on Sept. 1st 2016 for a duration of 5 years.

Main activities
CoBCoM has the overall goal to develop new generation of computational models and methods for identifying and characterizing the structural and functional connectivities of the brain, while integrating complementary non invasive brain imaging modalities as diffusion MRI, EEG and MEG. Clinical applications to high-impact diseases are also considered.

To know more: The article Computational brain connectivity mapping: A core health and scientific challenge published in Medical Image Analysis, MedIA 33(1), Oct. 2016, Pages 122-126 summarizes some challenges and target areas for CoBCoM and the rationale behind them.

Skills
Required Diploma ans experience:

Applicants for a Post-Doctoral / Starting research position must have a Ph.D thesis in computational brain imaging using dMRI, EEG.MEG. with a publication record in high quality journals and conferences.

Benefits package
- Subsidised catering service
- Partially-reimbursed public transport
- Social security
- Paid leave
- Flexible working hours
- Sports facilities

Remuneration
Gross salary: 2632€ monthly

General Information
- Theme/Domain: Optimization, machine learning and statistical methods
- Town/city: Sophia Antipolis
- Inria Center: CRI Sophia Antipolis - Méditerranée
- Starting date: 2018-05-01
- Duration of contract: 2 years
- Deadline to apply: 2018-07-01

Contacts
- Inria Team: ATHENA
- Recruiter: Deriche Rachid/rachid.deriche@inria.fr

The keys to success
Fonction: Post-Doctoral and/or Starting Research Position
- A PhD in Computational neuro-imaging with a good knowledge/experience in diffusion MRI, EEG & MEG
- A publication record in high quality journals and conferences in computational brain imaging
- Strong programming skills (including Python, C, C++, Matlab, etc.
- Proficiency in English, both spoken and written

About Inria
Inria, the French National Institute for computer science and applied mathematics, promotes "scientific excellence for technology transfer and society". Graduates from the world’s top universities, Inria’s 2,700 employees rise to the challenges of digital sciences. With its open, agile model, Inria is able to explore original approaches with its partners in industry and academia and provide an efficient response to the multidisciplinary and application challenges of the digital transformation. Inria is the source of many innovations that add value and create jobs.

Conditions for application
Defence Security:
This position is likely to be situated in a restricted area (ZRR), as defined in Decree No. 2011-1425 relating to the protection of national scientific and technical potential (PPST). Authorisation to enter an area is granted by the director of the unit, following a favourable Ministerial decision, as defined in the decree of 3 July 2012 relating to the PPST. An unfavourable Ministerial decision in respect of a position situated in a ZRR would result in the cancellation of the appointment.
Recruitment Policy:
As part of its diversity policy, all Inria positions are accessible to people with disabilities.

Warning: you must enter your e-mail address in order to save your application to Inria. Applications must be submitted online on the Inria website. Processing of applications sent from other channels is not guaranteed.