



Offer #2023-07012

PhD Position F/M PhD student

Contract type : Fixed-term contract

Level of qualifications required : Graduate degree or equivalent

Other valued qualifications : Master

Fonction : PhD Position

Level of experience : From 3 to 5 years

About the research centre or Inria department

The Inria Saclay-Île-de-France Research Centre was established in 2008. It has developed as part of the Saclay site in partnership with Paris-Saclay University and with the Institut Polytechnique de Paris since 2021.

The centre has 40 project teams, 27 of which operate jointly with Paris-Saclay University and the Institut Polytechnique de Paris. Its activities occupy over 600 scientists and research and innovation support staff, including 54 different nationalities.

Context

In the context of a partnership in a collaborative project Mobisec.

The objective is to produce models based on hyper-fractal measurements to describe cities and traffic densities with a restricted number of parameters, and to be able to simulate an imaginary city from an arbitrary set with an unrivalled level of accuracy. The work will serve as a learning data source for the pollution prediction and decarbonized traffic optimization models to be developed in the PERPC Mobidec collaborative project.

Does this position involve regular travel? The diversity of Mobidec participants will mean frequent travel, in addition to travel associated with international conferences to which the PhD student will be expected to contribute. Travel expe

Assignment

Missions : With the help of his/her thesis supervisor, the person recruited will be required to develop and complete mathematical models while manipulating data on mobility statistics in cities.

To gain a better understanding of the proposed research topic: A state of the art, a bibliography, scientific references are partly available at the following URL, feel free to connect to it: <https://sites.google.com/view/philippe-pierre-jacquet/research/iot>.

Collaboration: The person recruited will be in contact with David Coudert, who is contributing to the Mobidec project.

Responsibilities: The person recruited will be responsible for preparing publications and implementing models.

Supervision/Management: The person recruited will be responsible for managing databases and versions of software products.

Main activities

Main activities:

- Mathematical modeling of fractal and hyperfractal geometries,
- Development of programs/applications/interfaces,
- manipulation of statistical databases,
- use of artificial intelligence,
- writing scientific articles.

Complementary activities :

- Leading a community of users
- Present work progress to partners
- Write documentation

Skills

Technical skills and level required: Master's degree

Languages: English

Benefits package

- Subsidized meals
- Vacations: 7 weeks annual leave + 10 days RTT (full-time basis) + possibility of exceptional leave (e.g. sick children, moving house)
- Possibility of teleworking and flexible working hours
- Professional equipment available (videoconferencing, loan of computer equipment, etc.)

- Social, cultural and sports benefits (Association de gestion des œuvres sociales d'Inria)
- Access to professional training

Remuneration

1st et 2nd year : 2100€ gross/month

3rd année : 2190€ gross/month

General Information

- **Theme/Domain** : Networks and Telecommunications
Statistics (Big data) (BAP E)
- **Town/city** : Palaiseau
- **Inria Center** : [Centre Inria de Saclay](#)
- **Starting date** : 2024-02-01
- **Duration of contract** : 3 years
- **Deadline to apply** : 2024-05-31

Contacts

- **Inria Team** : [TRIBE](#)
- **PhD Supervisor** :
Jacquet Philippe / Philippe.Jacquet@inria.fr

About Inria

Inria is the French national research institute dedicated to digital science and technology. It employs 2,600 people. Its 200 agile project teams, generally run jointly with academic partners, include more than 3,500 scientists and engineers working to meet the challenges of digital technology, often at the interface with other disciplines. The Institute also employs numerous talents in over forty different professions. 900 research support staff contribute to the preparation and development of scientific and entrepreneurial projects that have a worldwide impact.

The keys to success

Feeling at ease in a dynamic scientific environment, enjoying learning and listening are essential qualities to succeed in this mission.

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.

Instruction to apply

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.