



Offer #2020-03176

Post-Doctoral Research Visit F/M Postdoc on decoding algorithms for quantum error correction

Contract type : Fixed-term contract

Level of qualifications required : PhD or equivalent

Fonction : Post-Doctoral Research Visit

Context

This position is opened in the framework of the Inria-Microsoft joint lab and the work will be in collaboration with Microsoft Research. The candidate will be selected jointly by Inria and Microsoft. This is an academic research position and the main work will be carried out at Inria Paris. The candidate is however expected to take the opportunity to have extensive visits at Microsoft (Paris and US). The inria-Microsoft partnership is regularly extended, and in this context the position would typically be extended too, or a new call would be opened.

Assignment

The aim of this research is to develop efficient decoding algorithms for quantum error correcting codes.

Collaboration:

The work at inria will be supervised by Anthony Leverrier. On Microsoft side, the contacts will be Nicolas Delfosse (US) as well as occasionally Vivien Londe (France).

Main activities

The main activities would include:

- taking part in proposing concrete research directions within the research topic
- carrying out this research on your own
- presenting the results (conferences, journals, internally to the group)
- participating in the activities and discussions of the research team

Skills

Programming skills (Python, C).

Good knowledge of decoding algorithms for classical error correcting codes.

Benefits package

- Subsidized meals
- Partial reimbursement of public transport costs
- Leave: 7 weeks of annual leave + 10 extra days off due to RTT (statutory reduction in working hours) + possibility of exceptional leave (sick children, moving home, etc.)
- Possibility of teleworking (after 6 months of employment) and flexible organization of working hours
- Professional equipment available (videoconferencing, loan of computer equipment, etc.)
- Social, cultural and sports events and activities
- Access to vocational training

General Information

- **Theme/Domain :** Algorithmics, Computer Algebra and Cryptology
Information system (BAP E)

- **Town/city** : Paris
- **Inria Center** : [Centre Inria de Paris](#)
- **Starting date** : 2021-02-01
- **Duration of contract** : 12 months
- **Deadline to apply** : 2021-01-31

Contacts

- **Inria Team** : [COSMIQ](#)
- **Recruiter** :
Leverrier Anthony / Anthony.Leverrier@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.

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.