



Offer #2024-08499

Post-Doctoral Research Visit F/M Characterisation of quantum computational systems

Contract type : Fixed-term contract

Level of qualifications required : PhD or equivalent

Fonction : Post-Doctoral Research Visit

About the research centre or Inria department

The Inria research centre in Lyon is the 9th Inria research centre, formally created in January 2022. It brings together approximately 320 people in 19 research teams and research support services.

Its staff are distributed in Villeurbanne, Lyon Gerland, and Saint-Etienne.

The Lyon centre is active in the fields of software, distributed and high-performance computing, embedded systems, quantum computing and privacy in the digital world, but also in digital health and computational biology.

Context

Daniel Stilck Franca and Mischa Woods are looking for candidates working in one or more of the following:

- Characterization and benchmarking of quantum devices.
- Dissipative preparation of quantum many-body states.
- Characterization of dynamical quantum advantages.

The focus of the research will be on quantum simulators/analog devices. Candidates with a diverse background in computer science, mathematics, or physics are welcome to apply.

The postdoctoral position is funded via the TouQan QuantERA grant collaboration (see <https://quantera.eu/touqan/> and <https://touqan.eu/>). While the main intended collaborators are Daniel and Mischa, further collaborations with the TouQan team more broadly would be a natural outcome.

The position comes with ample funding for travel to conferences and collaborators. The initial appointment is for two years, with the possibility of renewal, subject to the availability of funding.

Assignment

These are those of a conventional postdoc in theoretical computer science, mathematics and theoretical physics.

Main activities

Do research, have productive meetings with Mischa and Daniel, write papers, attend and give talks.

Skills

Technical skills:

- Strong mathematical ability
- Good command of English and the ability to write clearly, comprehensive, and mathematically rigorous papers.
- Hard-working, open-minded, good communications skills, time management, friendly, and honest.

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 (90 days / year) and flexible organization of working hours Social,

- cultural and sports events and activities
- Access to vocational training
- Social security coverage under conditions

Remuneration

2788 € gross salary / month

General Information

- **Theme/Domain** : Optimization and control of dynamic systems
Scientific computing (BAP E)
- **Town/city** : Lyon
- **Inria Center** : [Centre Inria de Lyon](#)
- **Starting date** : 2025-03-01
- **Duration of contract** : 2 years
- **Deadline to apply** : 2025-01-31

Contacts

- **Inria Team** : [QINFO](#)
- **Recruiter** :
Woods Mischa / mischa.woods@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

Applications must be submitted online via the Inria website. Processing of applications submitted via other channels is not guaranteed.

Defence security:

This position is likely to be assigned to a restricted area (ZRR), as defined in decree no. 2011-1425 relating to the protection of the nation's scientific and technical potential (PPST). Authorisation to access a zone is issued by the head of the establishment, following a favourable ministerial opinion, as defined in the decree of 03 July 2012 relating to the PPST. An unfavourable ministerial opinion for a post assigned to a ZRR would result in the recruitment being cancelled.

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.