2018-00442 - [Campagne Post-doctorat 2018/CRI PARIS] - Team PI.R2

**Contract type:** Public service fixed-term contract  
**Renewable contract:** Oui  
**Level of qualifications required:** PhD or equivalent  
**Function:** Post-Doctoral Research Visit

**Context**
This offer is not in the context of a collaboration with external partners

**Assignment**
The offer is for a post-doc position in Inria Team pi.r2

**General context:**
The team πr² covers three research topics:

- a fundamental research around the correspondence between proofs, programs, and homotopy with a focus on the logical contents of side-effects, on the computational contents of logical axioms, on higher-dimensional rewriting
- a theoretical research around the formalism that underlies the Coq interactive proof assistant, with a focus on unification, type inference, status of equality, incremental typing, tactic languages, higher-dimension rewriting, libraries management, ...
- an implementation field with the development of the Coq proof assistant.

Website: https://www.irif.fr/equipes/pi.r2/index

**Topics of interest for the position:**
The post-doc will have a research project matching one of these items:

- study of the different forms of equality in type theory and of their interactions (definitional equality, strict equality, extensional strict equality, univalent equality, proof-irrelevance, status of the conversion rule, ...)
- the proof-as-program correspondence especially in the presence of side-effects, or of axioms of choice
- higher-dimensional rewriting

**Collaboration:**
The recruited person will be in connection with Hugo Herbelin and possibly other members of the pi.r2 team.

**Main activities**
This is a research post-doc position.

**Skills**
We are looking for candidates with a background in type theory (realizability, homotopy type theory, ...) and formal proof techniques (especially in relation with Coq), or with a background in proof theory
(constructive classical logic, reverse mathematics, ...) and the principles of programming languages (functional programming, semantics of side effects, ...)

Benefits package
- Subsidised catering service
- Partially-reimbursed public transport

Remuneration
- Location: Laboratoire IRIF, Bâtiment Sophie Germain, Univ. Paris Diderot, 9 place Aurélie Nemours, 75013 Paris
- Gross Salary per month: 2 653€

Security and defense procedure:
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.

General Information
- Theme/Domain: Proofs and Verification
- Town/city: Paris
- Inria Center: CRI de Paris
- Starting date: 10/1/18
- Duration of contract: 1 year, 4 months
- Deadline to apply: 3/23/18

Contacts
- Inria Team: PI.R2
- Recruiter: Herbelin Hugo / hugo.herbelin@inria.fr

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.