Contract type: Public service fixed-term contract  
Renewable contract: Oui  
Level of qualifications required: PhD or equivalent  
Fonction: 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 pi² 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

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.
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:

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