2018-00869 - Post-Doctoral Research Visit / Biologie et santé, Sciences de la vie et de la terre / Earth, Environmental and Energy Sciences / PhD or equivalent

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

Context
Within the framework of a partnership (you can choose between)
- European Research Council (ERC) consolidator grant GATIPOR https://project.inria.fr/gatipor/

Is regular travel foreseen for this post? Yes.

Assignment
Assignments:
The recruited person will become member of the European Research Council (ERC) consolidator grant GATIPOR https://project.inria.fr/gatipor/.

For a better knowledge of the proposed research subject:
A state of the art, bibliography and scientific references are available at the following URL, do not hesitate to see the web pages https://team.inria.fr/serena/, https://project.inria.fr/gatipor/, https://who.rocq.inria.fr/Martin.Vohralik/.

Collaboration:
The recruited person will be in connection with the CERMICS laboratory at Ecole de Ponts ParisTech (prof. Alexandre Ern), http://cermics.enpc.fr/~ern/.

Main activities
Main activities:
- Construct algebraic error flux and potential reconstructions (H(div)- and H^1-liftings of the algebraic residual).
- Build problem- and discretization-dependent algebraic operators (like restriction, prolongation, and smoothing in the multigrid context).
- Ensure robustness with respect to the approximation polynomial degree.
- Design optimal hp-refinement strategies.
- Study convergence and guaranteed error reduction.
- Undertake computer implementation and analysis of model problems.

Skills
Ph.D. in numerical analysis and scientific computing (finite element methods, conjugate gradient/multigrid/domain decomposition algebraic solvers), strong publication record, programming skills (C, C++, Matlab).

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

Remuneration
Poste localisé Paris 12ème.
Rémunération selon profil et expérience.

General Information
- Theme/Domain: Earth, Environmental and Energy Sciences
- Biologie et santé, Sciences de la vie et de la terre (BAP A)
- Town/city: Paris
- Inria Center: CRI de Paris
- Starting date: 2018-10-01
- Duration of contract: 1 year, 6 months
- Deadline to apply: 2018-07-31

Contacts
- Inria Team: SERENA
- Recruiter: Vohralik Martin / martin.vohralik@inria.fr

About Inria
Inria, the French National Institute for computer science and applied mathematics, promotes "scientific excellence for technology transfer and society". Graduates from the world’s top universities, Inria’s 2,700 employees rise to the challenges of digital sciences. With its open, agile model, Inria is able to explore original approaches with its partners in industry and academia and provide an efficient response to the multidisciplinary and application challenges of the digital transformation. Inria is the source of many innovations that add value and create jobs.

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.