

Date: Thu, 4 Feb 2016 12:26:40 +0000

From: Mathematical Institute Vacancies

<vacancies@MATHS.OX.AC.UK>

To: EWM-ALL@JISCMAIL.AC.UK

Subject: Vacancy ID 122050: Postdoctoral Research Assistant in adjoint-based PDE-constrained optimisation

<https://www.maths.ox.ac.uk/node/15885>

We invite applications for a Postdoctoral Research Assistant, funded by EPSRC, to work with Dr Patrick Farrell at the Mathematical Institute, University of Oxford. This is a 12 month fixed term position and is available from 1st May 2016 (or as soon as possible thereafter).

The aim of the project is to develop mesh-independent optimisation techniques for PDE-constrained optimisation problems with inequality constraints. The algorithms developed will be released as open-source software and will be applied to industrial optimisation problems arising in the design of tidal turbine

arrays for marine renewable energy.

The successful candidate will work on research projects related to the grant EP/M011151/1 (A new simulation and optimisation platform for marine technology). The research will involve adjoints, finite element discretisations, automated code generation and high-performance scientific computing. They may also be required to teach up to four sets of undergraduate or graduate classes per year.

Applicants should have a PhD awarded, or a Masters degree and PhD submitted (at the time of taking up the position) in mathematics or a related discipline, with research interests in numerical analysis, scientific computing and optimisation. The candidate should be able to demonstrate programming experience (especially in C, C++ or Python) pertaining to the numerical solution of partial differential equations. Experience with finite element methods and high-performance computing is desirable.

Please direct informal enquiries to the Administrative Assistant (email: vacancies@maths.ox.ac.uk), quoting

vacancy reference 122050.

Applicants should read the job description before writing their application. You will be required to upload a letter setting out how you meet the selection criteria, a curriculum vitae including full list of publications, a statement of research interests and the contact details of three referees as part of your online application. (NOTE: Applicants are responsible for contacting their referees and making sure that their letters are received by the closing date).

Applications for this vacancy are to be made online. To apply for this post and for further details, including the job description and selection criteria, please click on the link below:

https://www.recruit.ox.ac.uk/pls/hrsliverecruit/erq_jobspec_version_4.jobspec?p_id=122050

Only applications received before 12:00 noon UK time on Monday 7th March 2016 can be considered.