The Jülich Supercomputing Centre (JSC) operates one of the most powerful supercomputing infrastructures in Europe and makes it available to researchers at Forschungszentrum Jülich, in Germany and throughout Europe. As part of this task JSC conducts various types of Research and Development, often in close collaboration with local, national and international partner institutions. JSC supports users through its strong expertise in High-Performance Computing and Data Science, on an individual basis as well as within specific projects and cooperations. Together with researchers from various specific fields, such as e.g. biological sciences or energy and climate science, applications and algorithms are analysed, adapted, developed and optimized, which can then make proper use of parallel computing architectures of modern hardware.

Strengthen JSC in the field “Application Optimisation” as a

2020-036 - Scientific staff for HPC Application Support

Your Job:
You will be part of a small team that is responsible for the analytics of simulation software and the support of their developers for code optimisation. Your work will include:

- Analysis of parallel scientific applications with respect to efficiency and scalability, in close collaboration with their developers
- Identification of optimisation potential, with focus on architecture-specific optimisation strategies aiming at scaling and/or performance improvements
- Design of concrete kernel algorithms and respective implementation strategies as part of assistance in software adaptations
- Benchmarking on hardware prototypes and analysis of results
- Support for compute projects, as well as contributions to work shops and training activities
- Co-development and application of software tools which are relevant for users and support staff on JSCs supercomputers

We look forward to receiving your application until 22.03.2020 via our Online-Recruitment-System!

Questions about the vacancy?
Contact us by mentioning the reference number 2020-036:
career@fz-juelich.de

Please note that for technical reasons we cannot accept applications via email.
www.fz-juelich.de
• Presentation/publication of results in collaboration meetings, workshops and conferences

Your Profile:
• Master degree in Technomathematics or university degree in computer science, engineering, physics, mathematics or natural science or equivalent degree
• Proven experience in parallel programming and the analysis of parallel applications using the paradigms Message-Passing (MPI) and/or OpenMP on Linux/UNIX systems
• Programming experience in at least one the following: C, C++, Fortran
• Knowledge in the scripting language Python, knowledge of the scripting languages Perl, PHP and/or JavaScript are desirable
• Proven background in software development, benchmarking or application optimisation
• Firm experience in the usage of Unix-based Operating System
• Ability to work independently and in a team of scientists with heterogeneous backgrounds
• Firm communication skills in English and ideally a good command of German
• Flexibility and willingness to travel to project meetings within Germany
• Experience with software analysis tools, regarding performance as well as correctness of codes is desirable
• Experience in GPU-based scientific modelling and simulations is desirable

Our Offer:
• The opportunity to be part of a challenging large-scale, multidisciplinary European Research Infrastructure project with 16 partners in 8 countries
• A diverse range of activities in an interdisciplinary, international research and support group and a friendly work environment
• Excellent infrastructure of one of the largest research centres in Europe
• Further development of individual strengths through a wide range of training and qualification opportunities
• Options for flexible work schedule, support for child-care, suitable solutions for the individual life situation
• Exciting working environment on an attractive research campus with excellent infrastructure, located between the cities of Cologne, Düsseldorf, and Aachen
• International and interdisciplinary working atmosphere
• A comprehensive further training programme
• Flexible working hours and various opportunities to reconcile work and private life
• Limited for 2 years with possible longer-term prospects
• Full-time position with the option of slightly reduced working hours
• Salary and social benefits in conformity with the provisions of the Collective Agreement for the Civil Service (TVöD)

Forschungszentrum Jülich promotes equal opportunities and diversity in its employment relations.

We also welcome applications from disabled persons.