



<http://opendreamkit.org>

Full-time mathematical researcher and developer position at TU Kaiserslautern for up to two and a half years beginning as soon as possible.

15 Dec 2016

We are seeking a full-time mathematical software researcher and developer at TU Kaiserslautern to work with Prof. Wolfram Decker on the Singular contribution to the OpenDreamKit project.

Deadline

Deadline for applications: TBA.

Location

The developer will work at TU Kaiserslautern in the city of Kaiserslautern Germany. Kaiserslautern is next to one of the largest contiguous forests in Europe.

Mission

To work as part of the OpenDreamKit collaboration, to do research on and implement improvements via parallelisation of components of Singular.

Activities

To research and implement parallel algorithms in Singular in C/C++.

Particular deliverables include:

- Improving the quadratic sieve for integer factorisation.

- Parallelising the new polynomial arithmetic functionality in Singular.

Depending on the skills of the applicant, the developer may also wish to contribute to other aspects of the Singular project and mathematical research in Kaiserslautern.

Skills requirements

- C/C++ programming experience
- Experience in computer algebra
- Fluency in English
- Must have an Masters degree in Mathematics
- Experience in Open Source development and tooling (GitHub)

Context

The position will be funded by

[OpenDreamKit](#), a [Horizon 2020](#) European [Research Infrastructure](#) project that will run for four years, starting from September 2015. This project brings together the open-source computational mathematics ecosystem – and in particular [LinBox](#), [MPIR](#), [SageMath](#), [GAP](#), [Pari/GP](#), [LMFDB](#), [Singular](#), [MathHub](#), and the [IPython/Jupyter](#) interactive computing environment. – toward building a flexible toolkit for [Virtual Research Environments](#) for mathematics. Lead by Université Paris-Sud, this project involves about 50 people spread over 15 sites in Europe, with a total budget of about 7.6 million euros.

Expressions of interest

Interested candidates should send an email to [decker {at} mathematik dot uni-kl dot de](mailto:decker@mathematik.uni-kl.de) and [goodwillhart {at} googlemail dot come](mailto:goodwillhart@googlemail.com) for further information about the position, as soon as possible.

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