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EU open source software project gets the green light

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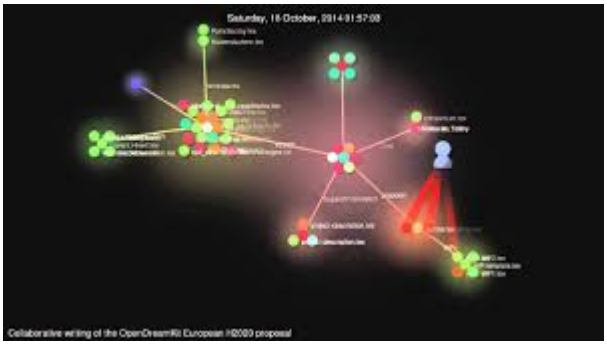

An open source software project involving the University of St Andrews to extend the capacity of computational mathematics and interactive computing environments has received over 7 million euros in EU funding.

The University of St Andrews has been awarded 900,000 euros to fund part of the international project led by the Université Paris Sud.

The resulting code, together with associated data and research publications, will be made available for free on the Internet as open source software that other researchers can use.

The project will develop software for mathematical tools (such as GAP and SageMath) which can be used by researchers to run computer models and crunch vast quantities of data, using computers to manipulate and solve equations.

The software underpins many research projects, ranging from physics and gravity simulation, to engineering, materials research and pure mathematics.

The funds will also support the development of virtual computing environment tools (such as the IPython Notebook) that create interactive documents able to solve equations using computer code, and process and visualise the resulting data.

This work flow revolutionises the ability to reproduce a computational experiment and document research data exploration. It also allows sharing of the computation and results in the ‘notebook’ with collaborators and is expected to penetrate all aspects of computational science over time.

OpenDreamKit is a 7.6 million euro project funded by the European Union's Framework 2020 programme. The four year project brings together 15 academic and industry partners from France, Germany, Norway, Poland, Switzerland and the United Kingdom.

The Universities of St Andrews, Oxford, Sheffield, Southampton and Warwick will share in 2.2 million euros to fund their contribution to the project.

Professor Steve Linton, principle investigator at St Andrews said: "The project's aims and approaches link closely to ongoing work at St Andrews on the GAP system for computational abstract algebra and the recently launched CoDiMa project which brings together UK work on software for discrete mathematics.

This will be a great opportunity to link our existing tools with other free mathematical software to deliver a first-class integrated environment for mathematical research."

NOTES TO NEWS EDITORS

For more information visit OpenDreamKit (http://opendreamkit.org) and CoDiMa (http://www.codima.ac.uk) and read the proposal document (https://github.com/OpenDreamKit/OpenDreamKit/raw/master/Proposal/proposal-www.pdf) .

Professor Linton is available for interview. Contact Communications Office.

Issued by the University of St Andrews Communications Office, contactable on 01334 467310 or proffice@st-andrews.ac.uk (mailto:proffice@st-andrews.ac.uk) .

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