

Special Projects

LCG

The mission of the LHC Computing Grid Project (LCG) is to build and maintain a data storage and analysis infrastructure for the entire high energy physics community that will use the the Large Hadron Collider (LHC) currently being built at CERN near Geneva, Switzerland.

<http://lcg.web.cern.ch/LCG>

EGEE-II

features a refocused middleware effort, increasing the integration of components from outside sources and putting more effort into integration and testing activities. It has more than 90 partners from 32 countries.

<http://public.eu-egee.org/>

D-Grid / DGI

The D-Grid Integration Project (DGI) has been started to build a sustainable Grid infrastructure in Germany, in order to establish methods of e-science in the German scientific community.

<http://www.d-grid.de>

Shosholoza - Research for the America's Cup

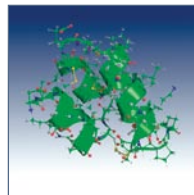
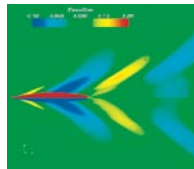
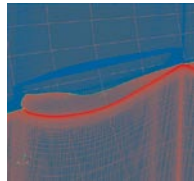
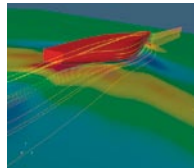
The South African Team "Shosholoza", ambitious newcomer, works closely in a joint research project with the Scientific Supercomputing Centre at the Universität Karlsruhe (TH). The aim of the project is to optimise the design and thereby the efficiency of the boat by highly complex numerical simulations of wind, waves and material.

<http://www.rz.uni-karlsruhe.de/projekte/5474.php>

Karlsruhe Integrated Information Management (KIM)

The goal of this project is to realise an integrated management of information providing and processing at the KIT. It comprises the consequent consolidation of all appropriate services in order to implement an integrated, ubiquitous service, information and knowledge resource for research, teaching, study, further education and administration.

<http://www.kim.uni-karlsruhe.de/index.php>



For more information please contact:

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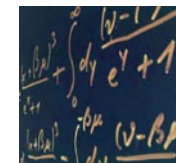
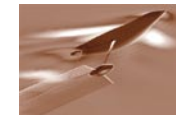
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Steinbuch Centre for Computing



Steinbuch Centre for Computing (SCC)

Karlsruhe Institute of Technology – Two strong partners united

With the objective of “Reaching the Top Together”, the Universität Karlsruhe (TH) and the Forschungszentrum Karlsruhe have founded the “Karlsruhe Institute of Technology”. KIT unites two strong partners: The Universität Karlsruhe (TH), one of the most research-oriented universities in Germany, and the Forschungszentrum Karlsruhe, member of the Helmholtz Association and an internationally acknowledged non-university institution.

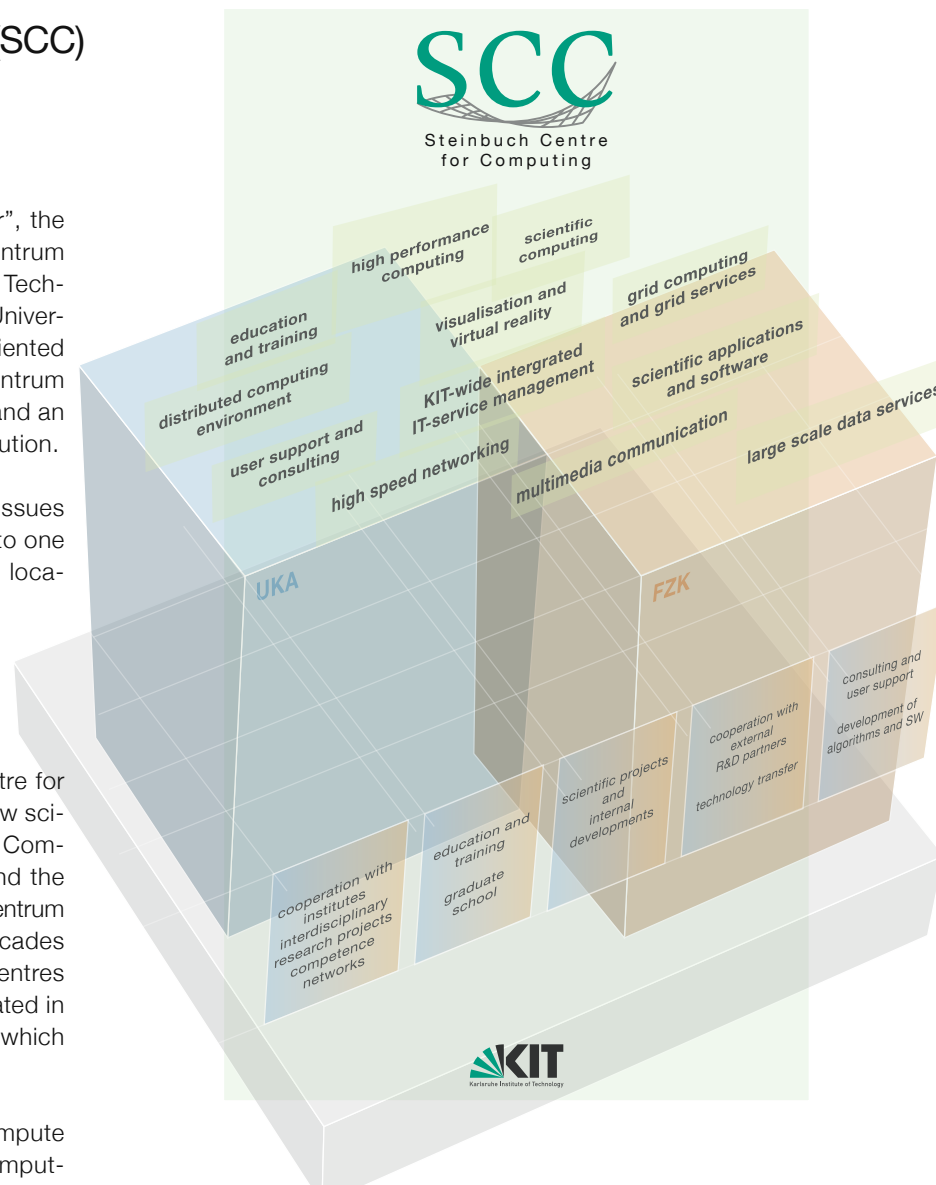
The proceeding strategic bundling of common issues and resources under the roof of KIT will give rise to one of the largest and highest-performing research locations in Europe.

Under the roof of KIT – Steinbuch Centre for Computing

With the creation of KIT also the “Steinbuch Centre for Computing” (SCC) has been founded. This is a new scientific institution resulting from the merger of the Computing Centre of the Universität Karlsruhe (TH) and the Institute for Scientific Computing of the Forschungszentrum Karlsruhe. Both institutions have ranked for decades among the most powerful scientific computing centres in Germany. Already since 1996 they have cooperated in the “Virtual Computing Centre” the resources of which scientists of both institutions can use.

Within the SCC the cooperation in the fields “Compute and IT Service” as well as “Grid and Scientific Computing” are to be intensified and newly organised. The research and development activities are focused on HPC & Simulation and Scientific Computing whereas the IT service division performs the classical and specific tasks of a modern IT service centre in science.

Since several years both partners have been attending to the innovative topic “Grid Computing”. It permits



the use of spaciouly distributed computer resources and thus the solution of entirely new problem classes. The Grid Computing Centre Karlsruhe (GridKa) is one of the worldwide tier-1 grid computing centres for high energy physics applications and is located at the Institute for Scientific Computing. Both institutions develop system software for grid computing as well as numerical methods for computer-aided simulation and solution of engineering problems.

Special Competences

Computing Centre Universität Karlsruhe (TH)

IT service centre for the support of research, teaching, study, further education and administration at the Universität Karlsruhe (TH)

- 18,000 students, 4,000 employees, 130 institutes

Operation of the High Performance Computer HP XC4000 of the State of Baden-Württemberg within the Baden-Württemberg High Performance Computing Competence Centre (hkz-bw) and support of the users

- Peak performance 15.6 TFLOP/s

Research and development in the fields of

- IT management, web engineering, service oriented architecture
- Distributed systems, network services and IT-security
- Numerical methods on high performance computers

Institute for Scientific Computing Forschungszentrum Karlsruhe

IT service centre for the support of all 4,000 employees, institutes and administrative divisions of the Forschungszentrum (internal users)

- Computers, networks, data, applications, desktop and print services

Conception, set-up and operation of the Grid Computing Centre Karlsruhe (GridKa) for the international high energy physics community

- Large-scale clusters, data storage and Internet connections (external users)

Research and development in the field of scientific computing

- Grid computing, high performance computing, CampusGrid

Numerous national and international grid projects