Fact sheet on applications for GCS/HLRS computing time projects on Hawk

1. Prospective users can apply for computing time on Hawk. Depending on the demand of compute time, there are two different ways for the application:
   - Applications for Large-Scale projects requiring more than 100 million core hours in a one year time frame can apply twice a year at defined periods of time. The dates for the next call can be found on the GCS webpage. The call deadlines are strict deadlines, applications submitted after the call deadline will be rejected.
   - Applications for smaller projects can be submitted at any time. Please find instructions on the HLRS web page.

   Applications are accepted *online only*. Applications via email *will not be accepted*.

2. Scientists with a high demand for computing time *are explicitly encouraged to apply for a GCS-Large Scale project*. If the application is not granted as a GCS-LS project it is automatically considered as a regular HLRS project. Therefore, *there are no disadvantages for the applicants* submitting a large scale project.

3. Eligible are scientists employed at universities or research facilities in Germany. Here, the nationality of the applicant ("Principle investigator, PI") does not play a role. Applicants from Europe but outside of Germany are advised of the possibility to apply at PRACE. The PI of a project must have a proven scientific record (preferable a PhD or comparable degree) and must be able to successfully accomplish the proposed tasks.

4. Available Systems

   Hawk is the new HPC system at HLRS. Applicants are kindly requested to test their applications on Hawk before submitting a proposal for a large-scale project. Test access and HLRS support for application porting is available.

   Overview Hawk

Hawk (Highly parallel system with a 9D-hypercube interconnect)	
Avail. core-h/call	approx. 1200 million
Processor	AMD® EPYC™ 7742
Nodes	5632, 128 cores per node
Memory	256 GB/node
Interconnect	Infiniband HDR200

5. Important Remarks
   - Hawk provides a fast and expensive interconnect as it is a homogenous large scale HPC system for scaling applications. Therefore
     - a good scalability of the application has to be shown
     - job farming is not an approbate way to use a large number of nodes in parallel on that system.
   - The file system is a shared resource. Not well behaving applications have a significant impact on other running applications. Therefore
     - please provide information about your I/O strategy
     - make sure not to use a large number of small files with your application
   - Regular operation includes waiting times for jobs as well as maintenance phases. Therefore, please make sure to be able to execute the job set according to your work plan in about 2000 hours wall clock time per year.

6. For the preparation of the requested project description, please ***use the template*** which is available in Word, LaTeX and PDF and adhere to the guidelines given on the GCS webpage Since the templates may change from call to call make sure to use always the latest version using the links above. Please be aware, that the size of the description is limited to ***18 pages (font size 11pt) and 60 MB***. In case you apply for a project extension, please also upload the status report (max. 10 pages) ***as a separate file*** (PDF). Please ***use the template*** which is available in Word, LaTeX and PDF.

7. For more details please refer to the HLRS web site