

PRESS RELEASE 05/2021

JUWELS Booster Remains Europe's Most Powerful Supercomputer, According to New Top500 List

Berlin/Germany, June 30, 2021 – The JUWELS Booster module, hosted at Jülich Supercomputing Centre (JSC)—one of the three centres comprising the Gauss Centre for Supercomputing (GCS)—continues to be the most powerful high-performance computing (HPC) system in all of Europe. This was confirmed with the 57th edition of the Top500 list, showcasing the world's fastest supercomputers, which was released on June 28, 2021 during the ISC High-Performance 2021 Digital conference. Delivering a peak performance of 71 Petaflops, the Atos built Jülich HPC system featuring NVIDIA A100 GPUs is listed 8th in the Top500 of June 2021. Additionally, being placed 7th in the Green500 list, which ranks HPC systems based on the gigaflops achieved per watt of energy used, the JUWELS booster is also Europe's most energy efficient HPC system.

The HPC systems of GCS—supercomputer Hawk (#18) of HLRS, the JUWELS Booster of JSC, and SuperMUC-NG (#17) of LRZ—claim three of only six top-20 positions captured by European representatives in the latest Top500 list. Apart from the three GCS machines, two Italian installations—commercially used Dell EMC system HPC5, installed at Eni S.p.A., and IBM system Marconi-100 of the non-profit consortium CINECA—and Cray XC50 machine Piz Daint, run by the Swiss National Supercomputing Centre, are the only other European supercomputers among the 20 most powerful HPC systems on the globe, of which Supercomputer Fugaku, a Fujitsu system hosted at the Japanese RIKEN Center for Computational Science, continues to be Number 1.

With the TOP500 rankings of its three national HPC systems, GCS solidifies Germany's position as the European leader in HPC space. The flagship supercomputers at the centres comprising the Gauss Centre for Supercomputing—the High-Performance Computing Center Stuttgart (HLRS), Jülich Supercomputing Centre, Leibniz Supercomputing Centre (LRZ)—in sum deliver a peak performance of just over 130 petaflops. This number includes approx. 12 Petaflops of peak performance delivered by the first module of the JUWELS installation at JCS, the JUWELS CPU system.

All GCS HPC systems are jointly funded by the German Federal Ministry of Education and Research, with 50% contributed by the federal states of Baden-Württemberg, Bavaria, and North Rhine-Westphalia respectively.

For a complete list of the Top500 rankings, click [here](#).
The complete Green500 list is available [here](#).

... / to be continued on page 2

Page 2 of GCS Press Release 05/2021 (June 30, 2021)



The JUWELS Booster module is among the top-10 of the fastest supercomputers world-wide. Listed 8th in the latest TOP500 (June 2021), the system is the most powerful HPC system in all of Europe. The machine also placed 7th on the Green500 list, making it Europe's most energy-efficient supercomputer.
© FZ-Jülich/Ralf-Uwe Limbach.

About GCS: The Gauss Centre for Supercomputing (GCS) combines the three national supercomputing centres HLRS (High-Performance Computing Center Stuttgart), JSC (Jülich Supercomputing Centre), and LRZ (Leibniz Supercomputing Centre, Garching near Munich) into Germany's Tier-0/1 supercomputing institution. Together the three centres provide the largest and most powerful supercomputing infrastructure in all of Europe and serve a wide range of industrial and research activities across various disciplines. They also provide top-tier training and education for the national as well as the European High Performance Computing (HPC) community. GCS is the German member of PRACE (Partnership for Advanced Computing in Europe), an international non-profit association consisting of 26 member countries, whose representative organizations create a pan-European supercomputing infrastructure, providing access to computing and data management resources and services for large-scale scientific and engineering applications at the highest performance level.

GCS is jointly funded by the German Federal Ministry of Education and Research and the federal states of Baden-Württemberg, Bavaria and North Rhine-Westphalia. It has its headquarters in Berlin/Germany.

Contact:

Regina Weigand, GCS Public Relations
+49 711 685-87261
r.weigand@gauss-centre.eu
www.gauss-centre.eu