

Speaker:

Dieter Kranzlmüller, Ludwig-Maximilians-Universität München (LMU) and Leibniz Supercomputing Centre (LRZ), Germany

Title:

Towards Smart Scaling with SuperMUC-NG

Abstract:

The next generation of HPC systems promise a substantial step towards exascale computing. An example is the SuperMUC-Next Generation (NG), which is being installed in 2018 at the Leibniz Supercomputing Centre (LRZ). The system has been selected based on the application mix at LRZ and resulting in a pure Xeon based system without accelerators or GPUs. This talk provides an update of the latest developments with respect to extreme scaling and the need for general purpose supercomputing, with details on the preparations for improved energy efficiency using hot water cooling and energy-aware scheduling. In addition, an outlook beyond SuperMUC-NG will be provided.

Prof. Dr. Dieter Kranzlmüller is a full professor of computer science at the Ludwig-Maximilians-Universität München (LMU) and since 1 April 2017 is the chairman of the board of directors of the Leibniz Supercomputing Centre (LRZ).

He has been working in parallel computing and computer graphics since 1993, with a special focus on parallel programming and debugging, cluster and especially Grid computing. He has participated in more than 30 national and international research projects, including leading roles in the EU Projects EGEE and EGI_DS, has been acting as reviewer and international expert for several countries and research programmes, and has co-authored more than 150 scientific papers in journals, and conference proceedings.

He is a founding member of the Executive Board of the EGI.eu Organization and a member of the Board of Directors of the Centre for Digital Technology & Management (CDTM) in Munich.

Before his move to Munich, he has been deputy head of GUP, the Institute of Graphics and Parallel Processing at the Johannes Kepler University Linz, appointed national representative of Austria in the EU e-Infrastructures Reflection Group (eIRG), and member of the Austrian Grid Executive Board.