Seminar

Wednesday, January 25, 2023
4–5:30 p.m.
Room 1.03, RRZK
University of Cologne
Weyertal 121

Center for Data and Simulation Science

Speaker:

Dr. Karl Rupp
TU Wien

15 YEARS OF GPUS FOR COMPUTATIONAL SCIENCE

PAST, PRESENT AND FUTURE

General purpose computations on Graphics Processing Units (GPUs) have become widely available with the first release of the CUDA toolkit in summer 2007. In the 15 years that have followed, GPUs have become widely adopted for many general purpose computations in computational science. And yet, there is still an ongoing debate whether "GPUs are worth it" from a productivity point of view. This talk revisits various technological developments in the GPU landscape over these 15 years and discusses current GPU functionality available in popular software libraries such as PETSc. Based on the lessons learned from the past, current developments and promises are evaluated in order to derive an outlook on where computational science using GPUs is headed.

cds.uni-koeln.de

University of Cologne