

IAS Seminar

Topic: Lattice QCD on Intel Xeon Phi's

Speaker: Peter Labus, SISSA Trieste, Italy

Contents: In this talk I will present the results of your recent efforts to include the twisted-mass formulation of Lattice QCD into the QPhiX library.

The latter is a C++11 template library that aims to provide low-level stencil operations and Krylov iterative solvers needed in Lattice QCD simulations, which are optimised for CPUs with large vector registers, like Intel Xeon Phi's.

I will give a short introduction to the relevant algorithmic and software engineering aspects of the original code and our modifications. Comparing benchmarks on both KNC's and KNL's, I will comment on the differences between these two architectures concerning low-level hardware features like L1/L2 prefetches and streaming stores.

Time: Friday, 10 February 2017, 14:00

Venue: Jülich Supercomputing Centre, Besprechungsraum 5, building 16.3v, room 2021