



Contribution ID: 82

Type: **Poster without speed talk**

Performance portability with alpaka

The alpaka library is a header-only C++17 abstraction library for development across hardware accelerators (CPUs, GPUs, FPGAs). Its aim is to provide performance portability across accelerators through the abstraction (not hiding!) of the underlying levels of parallelism. In this poster we will show the concepts behind alpaka, how it is mapped to the various underlying hardware models, and show the features introduced over the last year. In addition, we will also present the software ecosystem surrounding alpaka.

Primary authors: STEPHAN, Jan (Helmholtz-Zentrum Dresden-Rossendorf); Dr BASTRAKOV, Sergei (Helmholtz-Zentrum Dresden-Rossendorf); Dr DI PILATO, Antonio (Helmholtz-Zentrum Dresden-Rossendorf); Mr EHRLIG, Simeon (Helmholtz-Zentrum Dresden-Rossendorf); Mr GRUBER, Bernhard Manfred (CERN); Dr VYSKOČIL, Jiří (Helmholtz-Zentrum Dresden-Rossendorf); Mr WIDERA, René (Helmholtz-Zentrum Dresden-Rossendorf); Dr BUSSMANN, Michael (Helmholtz-Zentrum Dresden-Rossendorf)

Presenter: STEPHAN, Jan (Helmholtz-Zentrum Dresden-Rossendorf)

Session Classification: Conference Dinner with Poster exhibit

Track Classification: Data Management and Analysis