

A Scientist's Guide to FPGAs

Monday, 4 March 2019 10:45 (1 hour)

Field Programmable Gate Arrays (FPGAs) have become ubiquitous in a variety of technological and scientific fields. Their versatility make them an ideal match not only for computing intensive tasks but also for the differing requirements of custom electronics that often can be found in experimental setups.

This seminar leads the audience into the fully programmable and intrinsically parallel world of FPGAs. After an introduction to digital design and the anatomy of an FPGA, the design flow and required way of thinking will be presented. The seminar will be completed by a comparison of hardware and software-driven computation as well as an overview of the application of FPGAs in different fields and tasks.

Presenter: RUEDE, Alexander (CERN + KIT-IPE)

Track Classification: Lectures and exercises