LATTICE 2024

LIVERPOOL

Contribution ID: **337**   Type: **Talk**

Implementing automatic testing of Lattice QCD Software on Supercomputing Clusters

Tuesday, 30 July 2024 14:05 (20 minutes)

The advancement of lattice Quantum Chromodynamics (QCD) simulations demands robust and efficient computational infrastructure. This presentation details the implementation of Continuous Integration and Continuous Development (CI/CD) within our research group, specifically tailored to enhance the development and deployment of scientific software on a supercomputing cluster.

Our *TeamCity*-based CI/CD setup automates the testing and performance monitoring of the *Grid* and *Hadrons* software packages, ensuring consistent code quality and system reliability. By integrating automated unit tests and performance benchmarks, we can promptly identify and address issues, thereby accelerating the development cycle and maintaining high-performance standards. This talk aims to share our experiences and insights, providing a potential blueprint for other research teams looking to enhance their computational infrastructure.

Primary authors: PORTELLI, Antonin (The University of Edinburgh); BÜRGER, Simon (University of Edinburgh)

Presenter: BÜRGER, Simon (University of Edinburgh)

Session Classification: Software development and machines

Track Classification: Software Development and Machines