



Contribution ID: 151

Type: **Talk**

pyQCD: A Native Lattice Simulation Package for Python

Friday, 27 June 2014 15:35 (20 minutes)

I demonstrate pyQCD, a native Python library providing an extensible API for single-node lattice measurements and simulations. Boost.Python is used to wrap the underlying C++ code and expose an interface to Python for the generation of propagators and configurations, both of which are returned as numpy ndarray types. The library can take advantage of GPU technology by using CUDA where possible to accelerate Dirac operator inversions. The package provides a set of tools for rapid prototyping and testing of algorithms or lattice measurements prior to their implementation in production code.

Primary author: Mr SPRAGGS, Matthew (University of Southampton)

Presenter: Mr SPRAGGS, Matthew (University of Southampton)

Session Classification: Algorithms and Machines

Track Classification: Algorithms and Machines