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Simulating Lattice QCD on the "Govorun" Supercomputer

Thursday, 3 October 2019 13:00 (15 minutes)

Lattice Quantum Chromodynamics (QCD) is a well-established non-perturbative approach to the theory of strong interactions, QCD. It provides a framework for numerical studies of various complex problems of QCD. Such computations are numerically very demanding and require the most powerful modern supercomputers and algorithms. Within this talk, the lattice QCD simulations which are carried out on "Govorun" supercomputer are discussed.

The basic algorithms and their implementation on "Govorun" architecture are reviewed.

Important physical results and projects which are studied on "Govorun", including QCD at finite temperature, isospin and baryon density, are presented.

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