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Large scale simulations with parallel annealing algorithm

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Population annealing algorithm designed for the simulations of the statistical mechanics systems with rugged free energy landscape. We report on the realization of the algorithm for the use on the hybrid computing architecture combining CPU and GPGPU. Algorithm is fully scalable. We report application of the developed realization to several interesting problems. Algorithm can be applied to any system of statistical mechanics, described by partition function.

Primary author: Prof. SHCHUR, Lev (Landau Institute for Theoretical Physics, Science Center in Chernogolovka)

Presenter: Prof. SHCHUR, Lev (Landau Institute for Theoretical Physics, Science Center in Chernogolovka)

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