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A6: LatticeQCD.jl: Lattice QCD code with Julia

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We developed a new production code for lattice gauge theory in Julia language. Julia language has developed quickly since 2012, and it is used for many of calculations in condensed matter physics. This code has compatible speed with a fortran code, "Lattice Took Kit", and enables us to perform (R)HMC with the staggered and Wilson fermions with stout smearing for $SU(N)$ generic action and measure several observables in four dimension. In addition, we have implemented self-learning Monte-Carlo (SLMC). In this talk we quickly review functionality and performance of our code and discuss future possibilities. The code can be obtained from <https://github.com/akio-tomiya/LatticeQCD.jl>

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