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Lattice QCD Calculations in Nuclear Physics towards the Exascale[1]

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The combination of algorithmic advances and new highly parallel computing architectures are enabling lattice QCD calculations to tackle ever more complex problems in nuclear physics. In this talk I will review some computational challenges that are encountered in large scale cold nuclear physics campaigns such as those in hadron spectroscopy calculations. I will discuss progress in addressing these with algorithmic improvements such as multi-grid solvers and software for recent hardware architectures such as GPUs and Intel Xeon Phi, Knights Landing. Finally, I will highlight some current topics for research and development as we head towards the Exascale era

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