

Abstract for an Invited Paper
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Nucleons in lattice QCD - computational challenges and physics opportunities¹

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An overview is given of contemporary computational challenges in studying the properties of nucleons and other hadrons using lattice QCD. Drawing motivation from an introductory sketch of the physical principles underlying such studies and their implementation on a space-time lattice, the concrete computational and data management tasks involved in state-of-the-art lattice calculations are examined. Possibilities and limitations in carrying out these tasks are discussed in light of presently available hardware and the software and systems infrastructure developed by the lattice QCD community. On the basis of this discussion, current opportunities for breaking new ground in lattice QCD studies of nucleons and other hadrons are highlighted.

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