

独立行政法人理化学研究所 仁科加速器研究センター 第18回月例コロキウム [Part I] RIKEN Nishina Center for Accelerator Based Science The 18th Monthly Colloquium [Part I]

Nuclear Force from Lattice QCD

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The recent lattice QCD calculation on the nuclear forces is reported (the central force in ${}^{1}S_{0}$ and the effective central force in ${}^{3}S_{0}$). The essential features of the nuclear force are reproduced such as the repulsive core at short distance as well as the attraction at the medium/long distance. Since the NN potential is constructed from the NN wave function so as to satisfy the NN Schroedinger equation, the resulting potential is expected to be faithful to those obtained from the NN scattering data. Possible future applications are discussed.

Jan. 9 (Tue), 2006 15:30- [Part I] Nishina Hall, RIKEN The Colloquium will be given in English

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