Abstract Submitted
for the MAR06 Meeting of
The American Physical Society

Localized component method for few-body scattering and bound state calculations[1] VLADIMIR ROUDNEV, Kansas State University — A modification of Faddeev equations which admits a very effective computational scheme is proposed. The method allows to perform precise calculations of bound states and scattering in few-body systems. For the systems having loosely bound subsystems the method can reduce the computation time by an order of magnitude. We illustrate the method by calculating bound states and scattering of three atoms with a simple model interaction. We also report results for systems of noble gas atoms with realistic interactions.

[1]This work was partially supported by the Chemical Sciences, Geosciences, and Biosciences Division, Office of Basic Energy Sciences, Office of Science, U.S. Department of Energy.

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Date submitted: 30 Nov 2005 Electronic form version 1.4