Abstract Submitted for the MAR15 Meeting of The American Physical Society

Fully Exponentially Correlated Wave Functions for Few-Body Systems FRANK E. HARRIS, University of Utah and University of Florida — Analytical methods now make practical the study of three- and four-body problems using wave functions in which all the interparticle distances (and not just their squares) occur as exponentials. This type of basis yields wave functions that exhibit superior initial convergence toward exact results and that facilitate the accurate treatment of systems in which no one of the particles is far more massive than the others. Progress in the practical use of this formulation is reviewed.

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Date submitted: 14 Nov 2014

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