

Abstract Submitted
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Exactly Solvable Nuclear Models and Richardson-Gaudin Algebraic Structures¹ V.G. GUEORGUIEV, Lawrence Livermore National Laboratory, J. DUKELSKY, Instituto de Estructura de la Materia, CSIC, Madrid, Spain, P. VAN ISACKER, Grand Accelérateur National d'Ions Lourds (GANIL), France, S.S. DIMITROVA, Institute for Nuclear Theory and Nuclear Research, Bulgarian Academy of Science, Sofia, Bulgaria — We discuss the exact solution of the isovector pairing ($T=1$) in nuclei within the $SO(5)$ Richardson-Gaudin model. ^{64}Ge is used to illustrate the parameter space and shed light on the solutions of the Richardson-Gaudin models. Basic properties of the integrable Richardson-Gaudin models are summarized and their possible applications to variety of nuclear physics models are emphasized. This work was partially performed under the auspices of the U. S. Department of Energy by the University of California, Lawrence Livermore National Laboratory under contract No. W-7405-Eng-48.

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V. G. Gueorguiev
Lawrence Livermore National Laboratory

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