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Lia Leon Chachanidze-Margolin* (liamar99@aol.com), 927 Willow Avenue, #4, Hoboken, NJ 07030. *Developing Hyperspherical Function Method in Impulse Representation applicable for the microscopic investigations of various Nuclear and Hypernuclear systems.*

Development of the mathematic formalism of the hyperspherical function method based on the kinematic rotations for the various types of N-particle systems, namely: systems with different particles, systems consisting one distinguishable particle together with identical particles and systems of identical particles. Solution of kinematic rotation problem for the various types of four-, five- and six- body systems. Deriving the complete set of recurrence relations for obtaining kinematic rotation coefficients(KRK) under particle permutations with any hypermomentum KN and total orbital momentum LN (N=4,5,6) Developing of the construction scheme for the hyperspherical functions (HF) of N- body systems consisting of one distinguishable particle together with identical particles. Introducing the KRK of the obtained HF under particle permutations. Construction of N-body symmetrized hyperspherical basis using parentage scheme of symmetrization. Obtaining Young operators, acting on N-particle hyperspherical functions, symmetrized with respect to (N-1) particles. Calculation of the corresponding parentage coefficients with the use of hyperspherical KRK corresponding to the last two particle permutations.

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