

Calculation of Irreducible Rotor Bases of Point Groups in the Space of $SO(3)$ Group

Alexander Gusev

LIT JINR
Joliot-Curie, 6
Dubna, Russia

Joint work with: S.I. Vinitsky, A. Gozdz

A calculation scheme for generating bases for irreducible representations of the laboratory and intrinsic point symmetry groups acting in the rotor space is presented. The method of generalized projection operators is used. The generalized projection operators for the intrinsic group acting in the space $L2(SO(3))$ are constructed. Examples of the bases for octahedral group and its subgroups irreducible representations for the set of angular momenta are demonstrated.