## Abstract Submitted for the DAMOP06 Meeting of The American Physical Society

Role of Atomic Symmetries in Radiative Cascades. USKOV DMITRY, Louisiana State University, R.H. PRATT, University of Pittsburgh — We examine the effects of degeneracy for the problem of electron radiative cascade. A weak external field approximation in the Lindblad formalism is used to study a gradual transformation of cascade dynamics between degenerate and non-degenerate forms in the presence of external perturbations. Illustrative calculations are made for Coulomb system with SO(4) dynamic symmetry.

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