## 2005 Vol. 43 No. 4 pp. 709-718 DOI:

Spin Cut-off Parameter of Nuclear Level Density and Effective Moment of Inertia A.N. Behkami and M. Soltani

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Abstract: The spin cut-off parameter of the nuclear level density and effective moment of inertia for a large number of nuclei have been determined from analysis of the experimental data on S-wave neutron resonances and spins of low-lying levels. Contrary to claims made before, it is shown the spin cut-off parameter differs considerably from their corresponding rigid body values, and the energy dependence of the effective moment of inertia confirms the interacting fermion model prediction.

PACS: 21.10.Ma Key words: spin cut-off factor, effective moment of inertia

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