Contribution ID: **51**                                         Type: **not specified**

# ΔK=1 Coriolis mixing of 1+ states of 164Dy

*Tuesday 12 July 2022 12:00 (15 minutes)*

The Coriolis interaction is known to induce perturbations to a Hamiltonian which is diagonal in projection quantum numbers $K$. Precision values for the branching ratios between the scissors mode and the $2_1^+$ state of $^{164}$Dy unveil such a scenario in first order. Employing a two-state mixing calculation, the $K$-mixing matrix element along with first information on $\Delta K = 0$ $M1$ excitation strength is obtained. While the latter is about two orders of magnitude smaller than usual collective $\Delta K = 1$ $M1$ strengths, the associated mixing matrix element is twice as large as the one obtained from the second-order effect which admixes ground and $\gamma$ bands.

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**Session Classification:**   Empirical aspects of quantum phase transitions in nuclei

**Track Classification:**   Empirical aspects of quantum phase transitions in nuclei