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Title: **Wobbling motion in multi-bands crossing region**
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The backbending in the $A \simeq 180$ mass region is expected to be caused by multi-bands crossing between low-K (g- and s-bands) and high-K bands (t-bands) [1].

We analyze a mechanism of coupling of these bands in terms of a dynamical treatment for nuclear rotations, i.e.,wobbling motion [2]. The wobbling states are produced through the generator coordinate method after angular momentum projection (*GCM-after-AMP*), in which the intrinsic states are constructed through fully self-consistent calculations by the 2d-cranked (or tilted-axis-cranked) HFB method [3]. In particular, the phenomena of "signature inversion" and "signature splitting" in the t-band (tilted rotational band) are explained in terms of the wobbling model. We also discuss the wobbling motion in terms of a dynamical symmetry breaking and restoration, of the signature symmetry. Our calculations will be compared with new data for in-band E2 transition rates in ^{182}Os [4], which may shed light on the mechanism of the anomalous $K = 25$ isomer decay, directly to the yrast band.

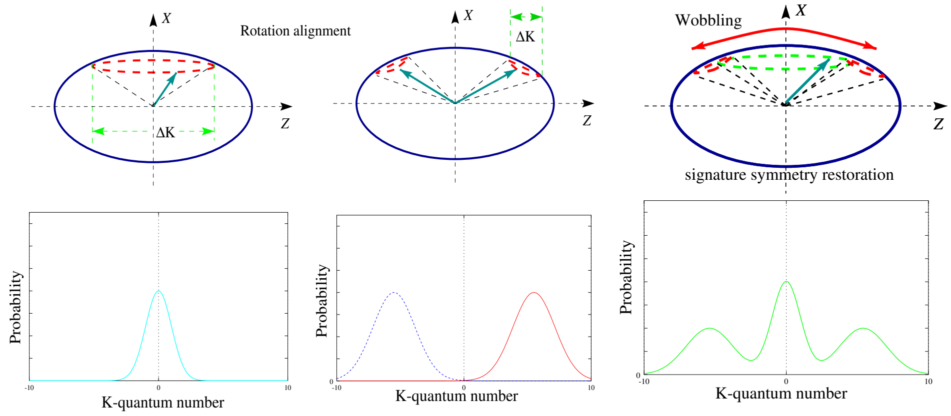

Figure: (from left to right) rotational alingment in s-band; in high-K band; and wobbling motion.

References

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