

ROTATING PSEUDO-OSCILLATOR SCHEME: PSEUDO-SPIN SYMMETRY AND IDENTICAL BANDS¹

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A simple coupling scheme for rotating nuclei, based on the pseudo-spin symmetry of the nuclear mean field, is proposed. This scheme applies to rotational bands built on natural-parity orbitals carrying aligned pseudo-spin, and can be used to classify intrinsic configurations in a rotating nucleus in terms of quantum numbers of the rotating harmonic oscillator potential. The effect of the shape polarization due to natural-parity orbitals is investigated for some superdeformed bands from the Gd/Dy region.

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