Selection rule for electromagnetic transitions in the chiral geometry

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Nearly-degenerate levels with the same spin-parity observed in some angular-momentum region have been taken as a primary indication of nuclear chirality, though in almost all available cases the equality of spin-parity of those "degenerate" pair levels are not experimentally pinned down. On the other hand, the chiral geometry should be identified in a more definitive way if electromagnetic properties for the paired bands are experimentally studied.

I plan to talk about the essence of the selection rule for electromagnetic transitions in the chiral geometry (based on the publication, Phys. Rev. Lett., **93**, 172502 (2004)). Then, some observed "chiral bands" in the region of $A \approx 130$ are critically examined. Though we use a simplified model for a special configuration in triaxial odd-odd nuclei, in our opinion an application of this special theoretical limit outweighs a los of generality.