Gamma transitions in Nuclei

- Nucleons move around the nucleus in quantized energy levels, just like electrons in atoms.
- When they jump from a higher “orbit” to a lower one they emit gamma $\gamma$ radiation with distinct energies.
- Superdeformation, in which the nucleus has the shape of a football, is a BIG deformation.
- It is observed in the $\gamma$ transitions between spinning motions of the nucleus. With each emission of a $\gamma$-ray the nucleus slows down its rotation by 2 units of angular momentum.