

## Studies of Chirality in the mass 80,100 and 190 regions

*Monday, 28 October 2013 11:00 (30 minutes)*

Recent results from investigations into nuclear chirality based on experimental work at iThemba LABS is reviewed. New results[1], obtained using the AFRODITE array, for  $^{194}\text{Tl}$  show a pair of four-quasiparticle bands featuring what is perhaps the best example so far of chiral energy degeneracy. In the mass 100 region, the nucleus  $^{106}\text{Ag}$  has been revisited with extensive additions to the level scheme and measurements of transition rates. Like  $^{134}\text{Pr}$ , it is a case where a crossing occurs between chiral candidate bands. In this case, gamma-softness was conjectured to play a role[2]. Our results suggest a completely different interpretation, where the excited partner band is actually of four-quasiparticle structure, itself a member of a chiral-vibrational structure.

[1] P.L. Masiteng et al, PLB 719, 83 (2013)

[2] P. Joshi et al PRL 98, 102501 92007)

**Primary author:** Dr BARK, Robert (iThemba LABS)

**Presenter:** Dr BARK, Robert (iThemba LABS)

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