

Lu163 Energy Function – November update

1. Study the evolution of the three minima of the energy function, with the change in angular momentum I (for a fixed set of moments of inertia, V , γ and j).
 - For a given set of MOIs, the location of the minimum points of the energy function \mathcal{H} won't change their location with the change in spin (i.e. $p_{min}^k = \{\theta_k, \varphi_k\}$ will remain in the same positions within the $\theta - \varphi$ plane).
 - The change in rotational spin I will only change the value of \mathcal{H} itself.
2. Check the expression of the energy function in cartesian coordinates using the new quantization axis: x_3 is the quantization axis: $x_3 = I \cos \theta$.