

is governed by the hyperradial motion, which in general is slow.

* Properties of the AHH solutions

$$\left[-\frac{\hbar^2}{m} \frac{L^2(\Omega)}{\rho^2} + V \right] \phi_0(\rho, \Omega) = \lambda_0(\rho) \phi_0(\rho, \Omega)$$

For $\rho \rightarrow 0$ the kinetic term dominates

$$\lambda_0(\rho) \rightarrow \frac{K(K+3N-2)}{\rho^2}$$

$$\phi_0(\rho, \Omega) \rightarrow Y_0(\Omega)$$

For $\rho \rightarrow \infty$

$$\begin{aligned} \lambda_0(\rho) &\rightarrow \text{A-1 spectrum} & (\lambda_0 < 0) \\ &\rightarrow \frac{K(K+3N-2)}{\rho^2} & (\lambda_0 > 0) \end{aligned}$$

$$\begin{aligned} \phi_0(\rho, \Omega) &\rightarrow \rho^m \phi_{A-1} & (\lambda_0 < 0) \\ &\rightarrow Y_{0'}(\Omega) & (\lambda_0 > 0) \end{aligned}$$