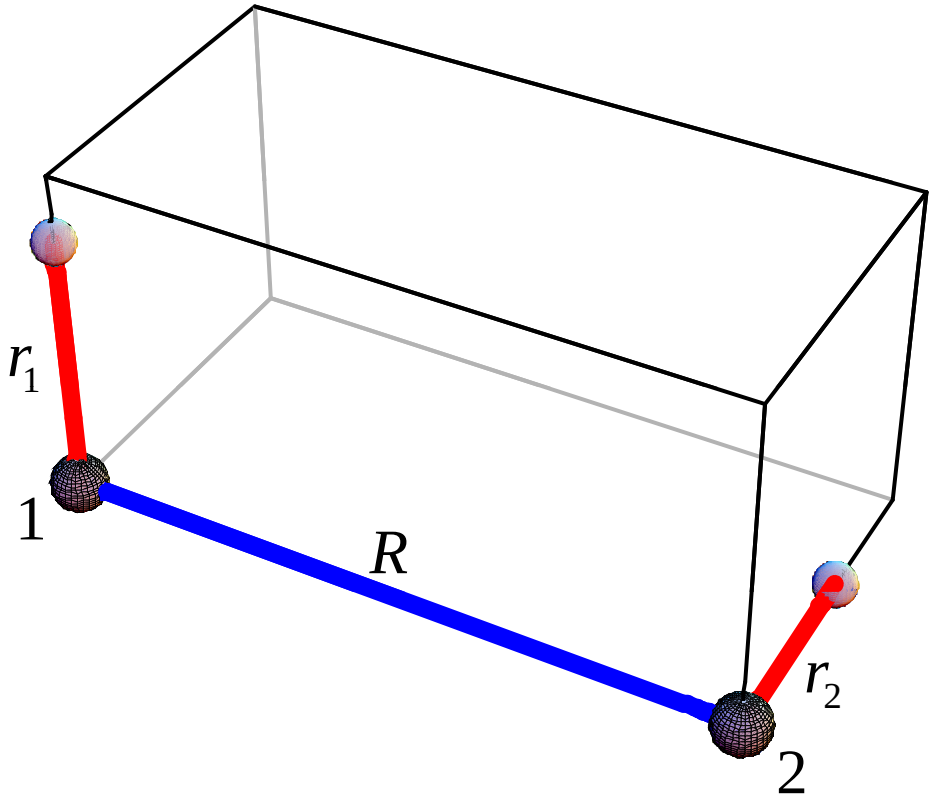
Energy functional



$$E(r_1, r_2, R) = T(r_1, r_2, R)$$

$$+\frac{1}{R} - \frac{1}{r_1} - \frac{1}{r_2} - \frac{1}{\sqrt{R^2 + r_1^2}} - \frac{1}{\sqrt{R^2 + r_1^2}} + \frac{1}{\sqrt{R^2 + r_1^2 + r_2^2}}$$

Kinetic energy

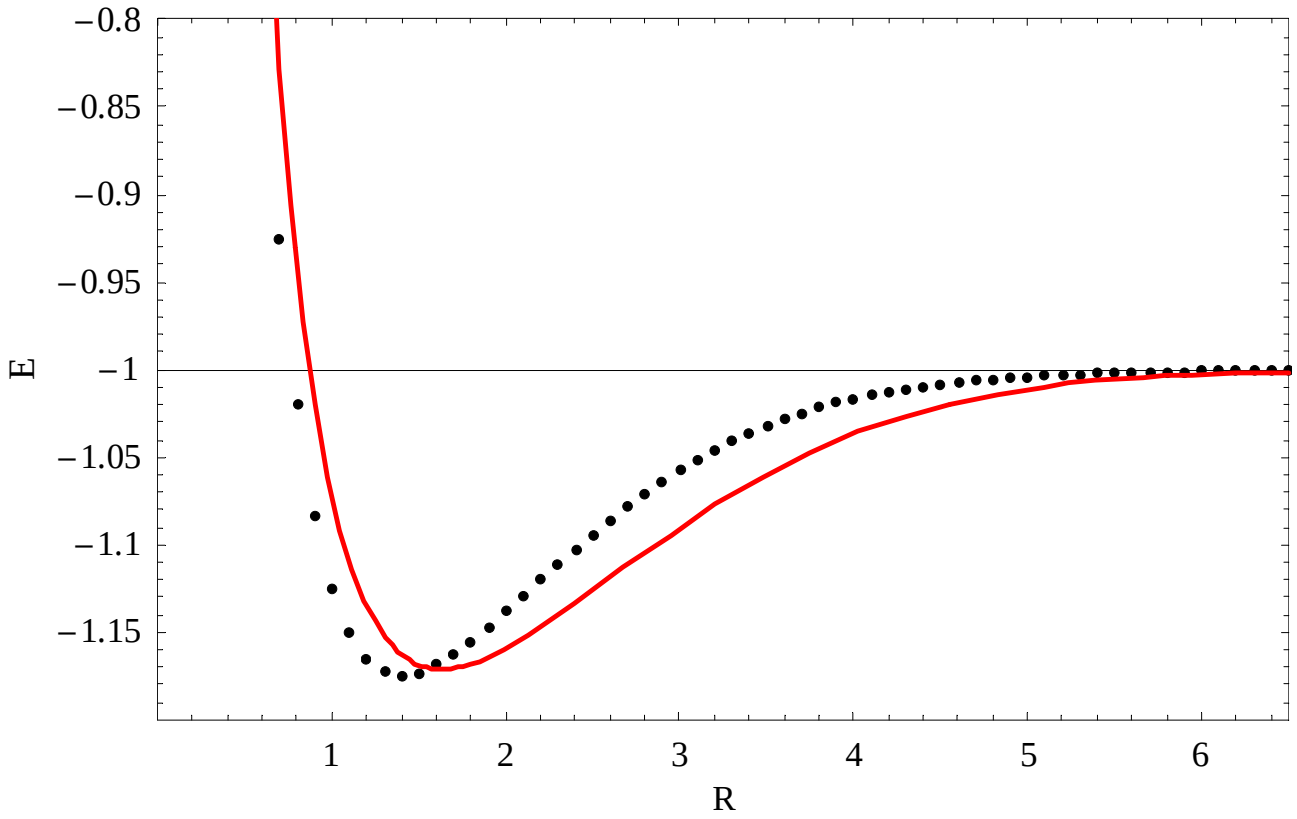
$$T(r_1, r_2, R) = \left\langle \Psi_{r_1,r_2} \left| \vec{\nabla}_1^2 + \vec{\nabla}_2^2 \right| \Psi_{r_1,r_2} \right\rangle$$

$$\Psi_{r_1,r_2}(\vec{r}_1, \vec{r}_2) = \exp(-r_{a1}/r_1)\exp(-r_{b2}/r_2) + \exp(-r_{b1}/r_2)\exp(-r_{a2}/r_1)$$

$$T(r_1, r_2, R) = \frac{1}{6}\left(-\frac{32\,(r_1^2 + r_2^2)}{r_1^4 + 14 r_2^2 r_1^2 + r_2^4} + \frac{32}{r_1^2 + 6 r_2 r_1 + r_2^2} + \frac{3}{r_1^2} + \frac{3}{r_2^2} \right)$$

(This expression is given for R=0. For arbitrary R it is more lengthy)

Results for the ground state



Results for the lowest triplet state