

Physics 472 - 2020

Quantum Mechanics

Quiz 6

Work for 10 minutes, take a picture, and e-mail it to me at dykmanm@msu.edu

Two identical spin $s = 1$ particles are in the same orbital state. Their interaction energy is $H_i = -a\mathbf{S}_1 \cdot \mathbf{S}_2$ with $a > 0$. Find the lowest and the highest energy. Write the wave functions of the corresponding states.