3) \( L = 0 \) assume that quarks are also in the same radial wave function

quarks are identical eg. \( u_1 u_2 u_3 \)
state must be antisymmetric under exchange of particles (\( u, v, m \) are color indices)

only possibility \( \text{Even } u_v(1) u_u(2) u_m(3) \)

\[ \Rightarrow \] \text{wave function must be completely symmetric under spin exchange} \Rightarrow J = \frac{1}{2} \]