

Solutions of the Schrödinger Eq.

$$H\psi = E\psi$$

$$\psi(\vec{r}_1(\vec{p}_1), \sigma_1, \tau_1; \vec{r}_2(\vec{p}_2), \sigma_2, \tau_2, \dots)$$

Difficulties:

- many dimensions
 - many channels
 - boundary conditions
 - Pauli Principle $\rightarrow$ symmetries
 - c.m. problem
- } bound states
easier than
continuum states

$\mathbb{R}^3$ variable $\nleftrightarrow$ particle
 $S \oplus T$ variable $\leftrightarrow$ particle
(but coupling!)