

Problem set 6

1. Consider this setup:

$$\begin{array}{ccc} + & +\parallel & +\parallel \\ 0\parallel & 0 & 0\parallel \\ -\parallel & - & - \\ S & T & S \end{array}$$

with T rotated relative to the two S's by $\pi/2$ about the common y-axis of the three apparatus. (The S,T amplitudes can be figured out from the formulas in Chapter 5.) This problem is trickier than it appears at first. A little care and thought are required.

- What fraction of the particles that make it through the first S make it through the T?
- What fraction of the particles that make it through the first S make it through the the second S?
- What are the answers if the T apparatus is wide open?