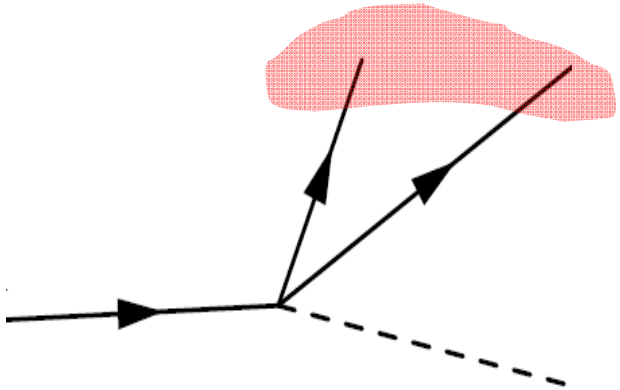
Exercises

- (12) Determine the shape of the phase space distribution dσ/d(mll) (up to an arbitrary normalizing constant) for the three-body decay shown below. Assume massless visibles, and arbitrary masses for the parent and invisible.



- (13) Prove that r=x/y must lie in the range $1/\sqrt{3} \le r \le 1/\sqrt{2}$. (Note this means r can only move by ±0.06 … not far!)
- (14) Estimate how many events (approximately) would be needed to distinguish two r values differing by 0.012 (i.e. ~1/10th of allowed range)