

## Energy Loss in Material vs. Direction

### What is the origin of the question?

- Difficulty calibrating the downstream direction?
  - But 9% cloud muons with 30% opposite polarization and a discrete (thick!) degrader option make this easy
- Ambiguity in the stopping location and distribution?
  - MWPC(-2):(-1):( +1):( +2) relative yields and pulse heights (Dennis Wright study)
  - Endpoint vs.  $1/\cos(\theta)$  study (Yuri Lachin work)
  - Changeable target thickness and/or material  $\Rightarrow$  probably need **BOTH** target modules