- Isotopes produced by muons are the main background of IBD signal.
- The key of muons' veto is to reject isotopes.
- 1million points as isotopes are uniformly distributed in the LS.
- Each point has a weight *1*W(d2muon)* based on the hist: iso_mu_dis.
- Cylinders with radius 3m.
- Isotopes excluded ratio $= \frac{\sum_i^{N_{cylinder}} W_{i,cylinder}}{\sum_i^{total} W_i}$

- muon veto criteria:
  - for muons tagged by the water Cerenkov detector or the Top Tracker, veto the whole LS volume for 1.5 ms;
  - for well-tracked muons in the Central Detector, veto the detector volume within a cylinder of distance to the muon track $R_{d2\mu} < 3$ m and within time to the preceding muon $T_{d2\mu} < 1.2$ s;
  - for tagged, non-trackable muons in the Central Detector, veto the whole LS volume for 1.2 s.