

# MUON TARGET STUDIES: TAPERED CAPTURE SOLENOID

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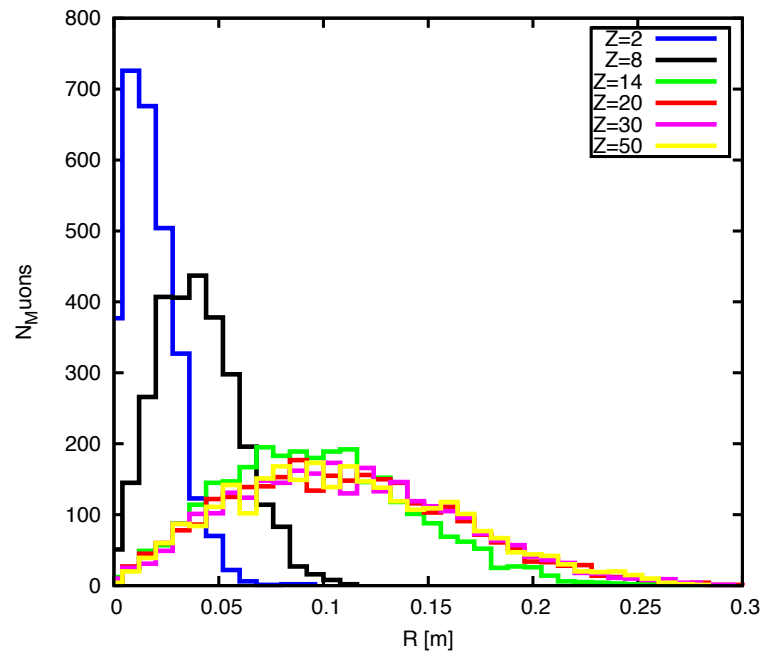
# DISTRIBUTIONS OF PARTICLES SURVIVED THE FRONT END AND ACCELERATION CUTS

- 1- Taper solenoid field: 20 --> 1.5 T over 15 m
- 2- ICOOL applied aperture for decay region  $R_{\text{aperture}} = 0.4$  m
- 3- Good particles are those who satisfy the following conditions/cuts
  - 1- Survived the phase rotator and cooling sections
  - 2- Fall within required acceleration acceptance cuts
    - $0.17 < P_z < 0.27$  GeV
    - Transverse cut  $R < 0.3$  m
    - Longitudinal cut 0.15 m

# DISTRIBUTIONS OF PARTICLES SURVIVED THE FRONT END AND ACCELERATION CUTS

## Particle radii distribution

Taper solenoid field: 20 --> 1.5 T over 15 m



# DISTRIBUTIONS OF PARTICLES SURVIVED THE FRONT END AND ACCELERATION CUTS

## Transverse Momentum distribution

