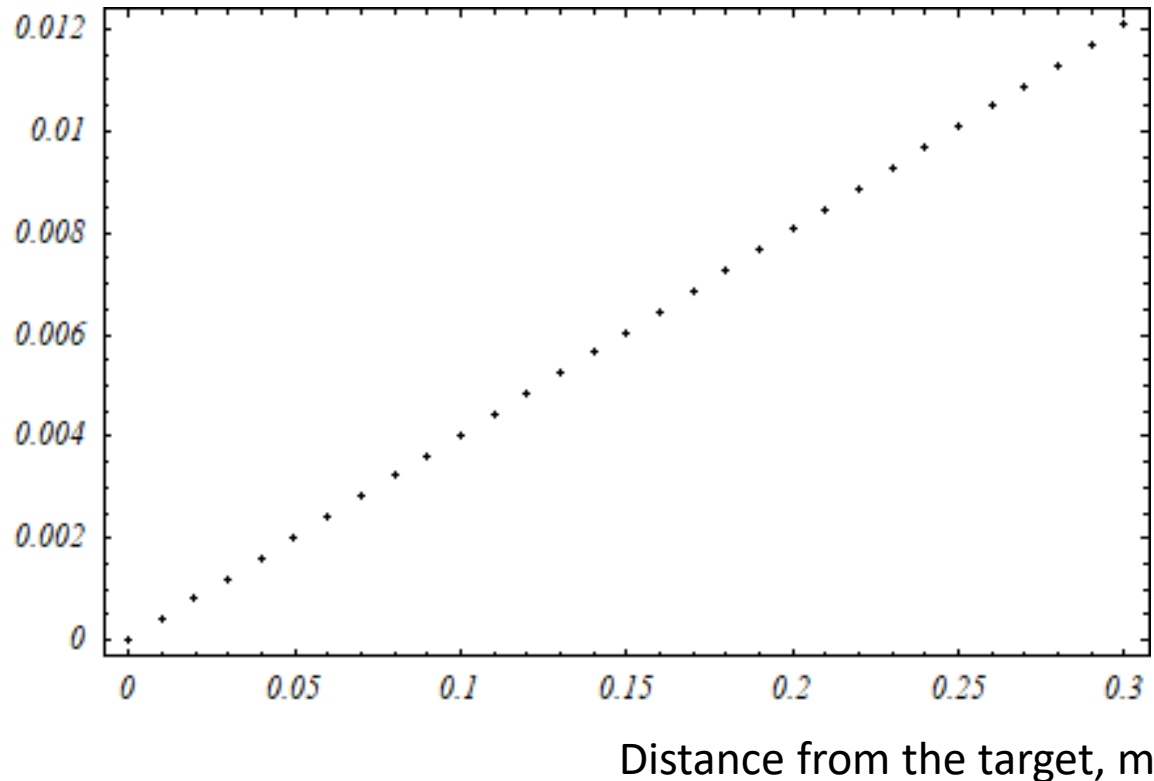


# Optical requirement for the vacuum slit size between the target and the first Gabor Lens

Beam radius, m



- Target and Gabor Lens operation have a different specification for vacuum
- It is proposed to separate them by the narrow slit to facilitate pumping
- The minimum size of the slit dictated by the beam size has been calculated ( $2\sigma$  size, allowing for emittance growth by a factor of  $\sim 2.6$ )