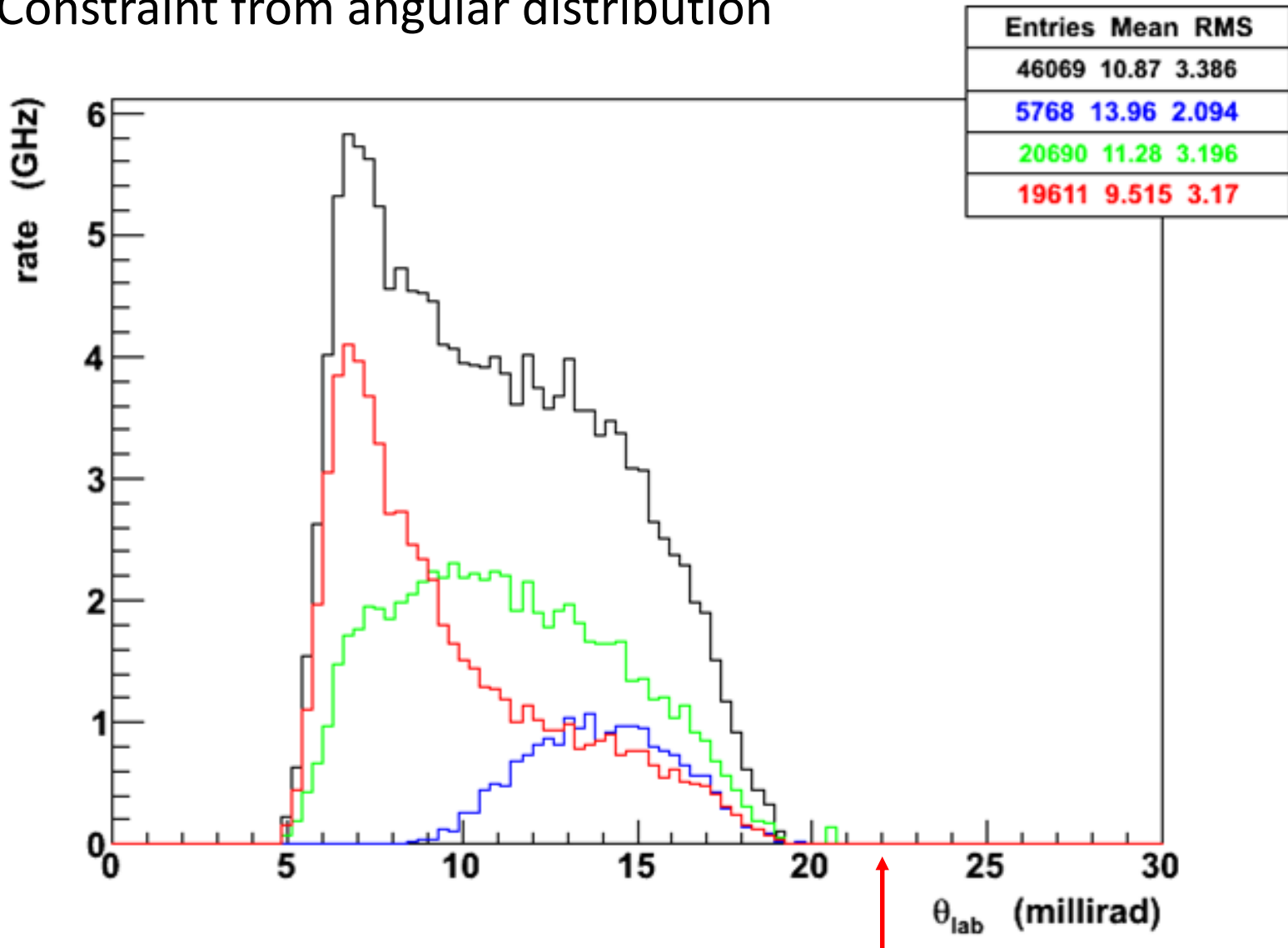


Upstream collar shield

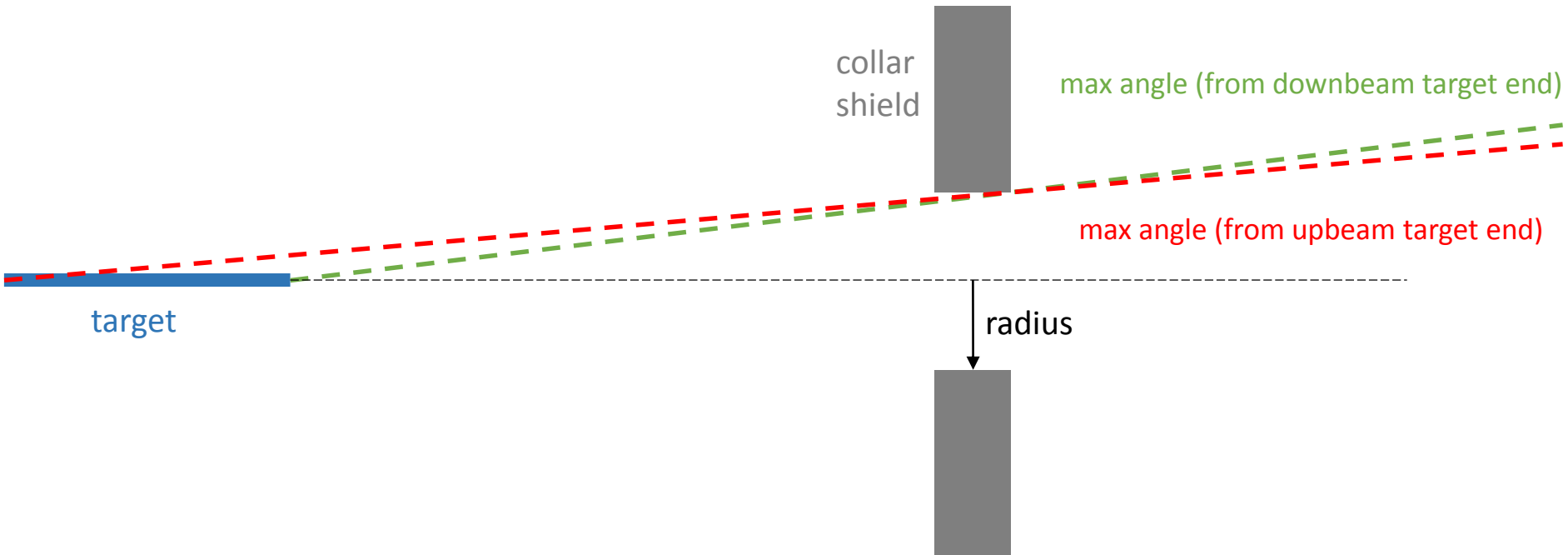
January 27, 2016

Constraint from angular distribution



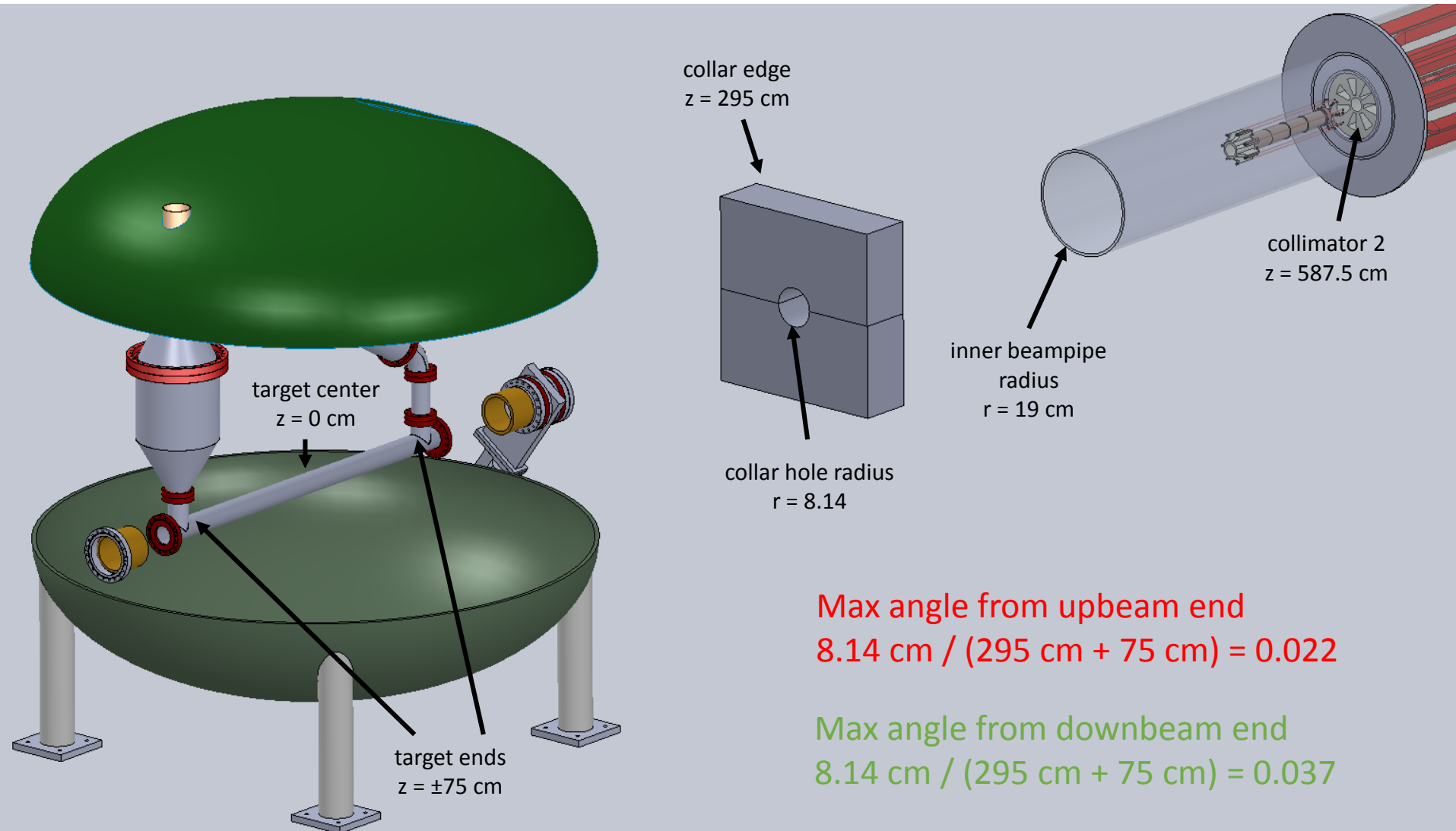
Don't cut out angles less than 22 milliradians

Collar shield radius



- Maximum angle from upbeam end must be ≥ 0.022 radians (previous slide)
 - Dictates radius of collar shield
- Maximum angle from downbeam end will dictate minimum beampipe radius at collimator 2

Resulting dimensions



Thus, the *minimum* beampipe radius is $0.037 * (587.5 \text{ cm} - 75 \text{ cm}) \approx 19 \text{ cm}$