

Beam Window Status Introduction

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Study 3 beam window scenarios

- 1) minimal beam window extending from the outside cryostat to the inner cryostat membrane
- 2) as 1) + inner cryostat membrane intact + low density plug up to the field cage
(results presented in previous meetings)
- 3) as 1) + inner cryostat membrane intact + low density plug penetrating the field cage into the truly active LAr volume

Purpose of studies

Question to be answered:

At what energies are particle interactions inside the cryostat/beam window material layer sufficiently small/negligible such that the incoming particle momenta are known sufficiently well known to allow a “useful” measurement of the detector systematic uncertainties ?

Beam window engineering

Tasks:

- 1) Placement of window [today's discussion]
 - a) Communication/responsibility issues
 - b) Tim/Cheng-Ju's proposal
 - c) Proposal from Marzio

Next steps:

- 2) Engineering and prototyping of window itself
- 3) Window interface issues for scenarios 1) – 3)
(HV breakdown, mechanical stability, field distortions, ...)