**Proposal Number:**  **PR12-25-003** **Hall: C**

**Title:** Final-State Interactions Studies in Deuterium at Very High Missing Momenta

**Contact person:** Carlos Yero (yero@cua.edu)

**Beam time request:**

Days requested for approval: 23 days

Tune up included in beam time request:

**Beam characteristics:**

Energy: 10.55 GeV

Current: 80 A

Polarization: n/a

**Targets:**

Nuclei: LD2/LH2/C12

Rastering: 3 x 3 mm

Polarized: No

**Spectrometers:**

HMS Yes (proton arm)

SHMS Yes (electron arm)

Other (NPS, CPS, new): None

**Special requirements/requests:**

**Technical Comments:**

80 uA could be challenging for accelerator, not possible if Hall A is running high current.

Spectrometer Angles and momentum settings are within the design ranges. However extra SHMS optics may be required for these relatively high momentum settings.

While the coincidence trigger rates may be low, the hodoscope rate (e.g. S1X) could be high for the SHMS at these smaller angles.

Will a slightly higher beam energy, 10.68 or 10.78 GeV, impact the results?

(for reference)

SHMS: angles: 12.82, 13.14, 13.65 deg, momentum: 7.552, 8.151, 8.551 GeV/c

HMS: angles: 41.57, 44.17, 49.27, 54.85 deg, momentum 2.468, 2.891, 3.069, 3.516 GeV/c