Proposal: J12+24 Run Group H
Hall: B – CLAS12

The jeopardy proposal for CLAS12 Run Group H comprises 3 experiments approved with rating A by PAC39 to run with a 11 GeV electron beam scattering off a transversely polarized target. The run group has been reapproved before by PAC48.

The reason that this experiment has not been received beam is the nonexistence of a transversely polarized target system.

<u>Findings</u>**:**
The initially foreseen HDice target concept failed. The new concept calls for a new superconducting, split-coil magnet that produced a 5 T magnetic field in transverse direction and replacing the CLAS12 solenoid. In addition, a magnet chicane needs to be realized to compensate the beam deflection. A new µ-RWell tracking detector for the recoiling protons and a scintillating fiber detector have been proposed.

<u>Comments</u>**:**
Only a preliminary model for the target magnet has been developed. The exact geometry of this magnet will determine the kinematic acceptance for the reactions under study. This acceptance then will determine the kinematic reach and the necessary integrated luminosity for reaching the desired statistical precision. At the same time, the exact geometry of this magnet also determines the particle background.