

Abstract Submitted
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Commissioning the Super High Momentum Spectrometer in Hall C at Jefferson Lab HOLLY SZUMILA-VANCE, Jefferson Lab, HALL C COLLABORATION — The Super High Momentum Spectrometer (SHMS) is a new spectrometer installed in Hall C at Jefferson Lab that can detect particles over a range of central momenta from 2–11 GeV/c and scattering angles from 5.5 to 40 degrees. Jefferson Lab delivers a high intensity electron beam with an energy up to 11 GeV to fixed targets in Hall C. The SHMS is a highly precise and essential upgrade for the 12 GeV Jefferson Lab physics program. Its beam line consists of a dipole magnet with a 3-degree horizontal bend, three quadrupole magnets for horizontal and vertical focusing of the beam, and the spectrometer dipole capable of a 4 T central magnetic field and 18.4-degree bend angle. Measurements in Hall C can be taken with the SHMS independently or in coincidence with the existing High Momentum Spectrometer (HMS). The SHMS was installed in the spring of 2017 and commissioned during the fall 2017/winter 2018 using a range of electron beam energies. This talk summarizes the initial results of the optics tuning of the SHMS and the performance during recent experimental running to include initial elastic hydrogen scattering measurements.

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