

Abstract Submitted  
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**The SAMURAI Time Projection Chamber** STEVEN DYE, Western Michigan University — The SAMURAI Time Projection Chamber (TPC) will be used to study particle collisions by colliding a beam of particles with a stationary gas which will be contained in a field cage inside the TPC. When the beam collides with the gas, charged particles are accelerated into the pad plane by an electric field. The paths of these particles will be curved by a magnetic field created by the SAMURAI magnet at the RIKEN facility in Japan. The charged particles will then collide with the pad plane which will be located on the bottom of the TPC. The pad plane will take these collisions and create electrical signals and send them to supporting electronics where the data can be interpreted. The TPC will be used to help determine the Equation of State for asymmetric nuclear matter. Measurements of neutron, proton,  $^3\text{H}$  and  $^3\text{He}$  flow will be taken with the NEBULA array which consists of nebula scintillators. The poster will contain information on the laser calibration system and the electronics that will be used for the TPC. The electronics used are the same electronics used in the STAR TPC experiment.

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