

Abstract Submitted
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**Testing and Evaluation of PHENIX Reaction Plane Detector
Photomultiplier Tubes** NICHOLAS ANDERSON, ERIC RICHARDSON, AL-
ICE MIGNEREY, University of Maryland, PHENIX COLLABORATION — The
PHENIX Reaction Plane Detector (RxnP) at the Relativistic Heavy Ion Collider
is designed to determine the reaction plane in heavy ion collisions. Currently the
reaction plane is determined using the Beam Beam Counters. However, the RxnP
will increase the resolution by nearly a factor of two over the currently achievable
levels. This detector's location in the central region of PHENIX will expose it to a
magnetic field of approximately 1 Tesla. The curvature of the field lines makes it
necessary to understand the relationship between the angle of the photomultiplier
tubes (PMTs) in the magnetic field and the PMTs' output. Results of bench-top
tests of the PMTs in similar magnetic fields and their impact on the final design will
be presented.

Nicholas Anderson
University of Maryland

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