

Abstract Submitted  
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**Testing The sPHENIX MTVX Readout Units** AUSTIN SCHMIER,  
University of Tennessee, SPHENIX COLLABORATION — THE SPHENIX EXPERIMENT IS A NEXT-GENERATION EXPERIMENT DESIGNED TO STUDY THE QUARK GLUON PLASMA USING JETS AND QUARKONIA SPECTROSCOPY. THE MAPS-BASED VERTEX DETECTOR (MVTX) WITHIN SPHENIX IS USED FOR PARTICLE TRACKING AND VERTEXING, AS WELL AS PROVIDING CAPABILITIES FOR HEAVY-FLAVOR STUDIES. TESTING OF THE MVTX READOUT UNITS FOR THE SPHENIX DETECTOR IS ONGOING AT OAK RIDGE NATIONAL LABORATORY. THESE READOUT UNITS ARE HIGH GRANULARITY, LOW POWER, FAST, AND RADIATION TOLERANT, WITH THE CAPABILITY OF HANDLING THE HIGH EVENT RATE AND RESOLUTION REQUIREMENTS OF THE SPHENIX DETECTOR. TESTING CONSISTS OF CHECKING THE READOUT UNITS FOR ERRORS, SUCH AS SHORT CIRCUITS AND OPTICAL FIBER LOOPBACK ISSUES, CONFIRMING FUNCTIONALITY OF THE VARIOUS COMPONENTS, AS WELL AS PROGRAMMING THE BOARDS FOR USE WITHIN SPHENIX. AN OVERVIEW OF THE READOUT UNITS, TEST PROCEDURES, AND SOME PRELIMINARY RESULTS ARE PRESENTED.

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