

Abstract Submitted  
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**Exploring the Use of the Alabama Supercomputing Authority resources to supplement CMS Monte Carlo Production<sup>1</sup>** CHARLES JENKINS, University of South Alabama, CMS COLLABORATION — The 14 TeV center of mass proton-proton collisions of the LHC is designed to search for the Higgs, but opens the possibility for observing new Physics including SUSY, quark compositeness and large extra dimension if these phenomenon exists. The analysis of data collected from CMS will rely on the generation of extensive number of monte carlo events. Currently, a faculty member at the University of South Alabama is studying the possibility of utilizing one of the Alabama Supercomputer Center (ASC) computer clusters to help the CMS monte carlo group in generating events. This investigation is in the early phase, but the researcher has generated a sample of events for the CMS monte carlo test example channel  $H(190) \rightarrow Z^0 Z^0 \rightarrow \mu^+ \mu^- \mu^+ \mu^-$  on both the Dense Memory Core cluster at the ASC and a similar sample on a PC running Scientific Linux 5.4. A description of how the CMS analysis software is implemented on the Alabama Supercomputer DMC cluster will be presented. The distribution from the test samples from both machines will be presented and compared.

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