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The production of dielectrons in Au+Au collisions at $\sqrt{s_{NN}}$ = 27 GeV from STAR JOSEPH BUTTERWORTH, William Marsh Rice University, STAR COLLABORATION — Heavy-ion collisions at relativistic energies are capable of producing hot, dense, and strongly interacting nuclear matter. From the time of collision, leptons are produced and travel through the system with minimal interaction. Thus, dileptons make an excellent probe of the matter. At SPS beam energies, a significant enhancement was observed in the low-mass range (M_{ee} <1.1 $GeVc^{-2}$). This enhancement was found to be consistent with an in-medium modification of the ρ meson spectral function. At top RHIC energies, such enhancements have been observed again. The beam energy scan program aims to close the gap between SPS and top RHIC energies by systematically studying the intermediate center of mass energies. The STAR experiment is in an excellent position to study these medium modifications because of its high purity, large acceptance electron identification through the combined use of its Time Projection Chamber and Time of Flight detectors. In this presentation, I will present a study of the dielectron production in Au+Au collisions at $\sqrt{s_{NN}}$ = 27 GeV and compare to results at the other RHIC energies.

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