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A study of continuum contribution to dielectron mass spectra at RHIC energies. VALERIE HANGER, Iowa State University — The invariant mass distribution of electron-positron pairs is a crucial tool to account for particles which decay in a lepton-like manner such as J/ψ , ψ' , and Υ . Most of the background in the measurement of invariant mass comes from combinatorial pairs and can be removed with mixed event or like-sign electron pair distributions. This still leaves some background composed of unlike-sign electron pairs from correlated D and B mesons and from Drell-Yan. In this poster I will present a systematic study of these contributions, known as continuum. I calculated the continuum contribution to the dielectron mass spectra at RHIC energies using the PYTHIA event generator, studying changes in continuum by varying several of the PYTHIA input parameters.

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