

Abstract Submitted  
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**Beautiful Measurements: Heavy-Flavor Electrons in ALICE at the LHC** ERIN GAUGER, Univ of Texas, Austin, ALICE COLLABORATION<sup>1</sup>

— The quark gluon plasma (QGP) is a state of matter formed in high-energy, heavy-ion collisions in which quarks and gluons are momentarily deconfined in a strongly interacting medium. To study this state of matter, which is too short-lived to be measured directly, one can study the behavior of different flavors of quarks in Pb-Pb collisions. Heavy-flavor quarks (charm and beauty) are particularly useful as a probe, as they are created at the beginning of heavy-ion collisions and must travel through the QGP medium before their decay particles reach detectors. In this talk, I will discuss recent heavy-flavor measurements in A Large Ion Collider Experiment (ALICE) at the Large Hadron Collider (LHC). In particular, I will focus on nuclear modification factor measurements of heavy-flavor and beauty-decay electrons in Pb-Pb collisions. Though semi-leptonic decay channels of heavy-flavor hadrons have a high branching ratio, these measurements can be challenging due to background sources of electrons. I will end my talk with discussion of new analysis techniques being used to remedy this problem and improve beauty-decay electron signals.

<sup>1</sup>A Large Ion Collider Experiment at the Large Hadron Collider at CERN

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