Contribution ID: **13** Type: **Contributed 2**

A New Correlator to Detect and Characterize the Chiral Magnetic Effect

Monday, 19 March 2018 16:40 (25 minutes)

A charge-sensitive in-event correlator is proposed and tested for its efficacy to detect and characterize charge separation associated with the Chiral Magnetic Effect (CME) in heavy ion collisions. Tests, performed with the aid of two reaction models, indicate discernible responses for background and CME-driven charge separation, relative to the second- ($\Psi 2$) and third-order ($\Psi 3$) event planes, which could serve to identify the CME. The tests also indicate a degree of sensitivity which would enable robust characterization of the CME via Anomalous Viscous Fluid Dynamics (AVFD) model comparisons.

Primary author: Prof. LACEY, Roy (Stony Brook University)

Presenter: Prof. LACEY, Roy (Stony Brook University)