Quark Matter 2015 - XXV International Conference on Ultrarelativistic Nucleus-Nucleus Collisions



Contribution ID: 8

Type: Poster

Chiral Electric Separation Effect

Tuesday, 29 September 2015 16:30 (2 hours)

An applied magnetic field can induce electric current and axial current in chiral-imbalanced medium. These are the famous chiral magnetic and chiral separation effect. We show that there is one additional anomalous current in chiral-imbalanced medium, namely, an axial current induced by an applied electric field. This can be called chiral electric separation effect (CESE). We will discuss its origin and possible implications in heavy-ion collisions.

On behalf of collaboration:

NONE

Primary author: HUANG, Xu-Guang (Fudan University)

Co-authors: MA, Guo-Liang (Shanghai INstitute of Applied Physics (SINAP), CAS); LIAO, Jinfeng (Indiana University); JIANG, Yin (Tsinghua University)

Presenter: HUANG, Xu-Guang (Fudan University)

Session Classification: Poster Session

Track Classification: New Theoretical Developments