

The 8th Asian Triangle Heavy-Ion Conference (ATHIC2021)



Contribution ID: 97

Type: **not specified**

DJBUU: A new transport model for RAON experiments

Monday, 8 November 2021 11:59 (17 minutes)

Transport theory can extract microscopic information in heavy-ion collisions of low-energy region. Though many transport codes have been emerged in recent years, there is not any codes optimized for Korean HIC acclerator. We initiated a new project so called DJBUU project with easy handling in order to prepare experiments in Rare isotope Accelerator complex for ON-line experiments (RAON). One branch of the transport models, Boltzmann-Uehling-Uhlenbeck (BUU), is based on the kinetic theory with microscopic interactions and quantum properties. As the name of DJBUU suggests, it is based on BUU-type and the interactions are based on the relativistic mean-field approximations. Dynamical evolution of heavy-ion can be simulated by introducing two significant ingredients, collisions and potential. In this talk, I will introduce a newly developed transport model, DJBUU which is optimized for RAON experiments and discuss about the hint of nuclear symmetry energy from transport calculations.

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Session Classification: Contributed Session 5

Track Classification: Track group 1: Theory