

The 99th HENPIC seminar by Dr. Dmytro Oliinychenko, Lawrence Berkeley National Lab (LBNL), April 9th, 2020, Thursday, 10:30am (Beijing time)

Title: Light nuclei production in ultrarelativistic heavy-ion collisions

Abstract:

Recent measurements of deuteron, triton, hypertriton and helium nuclei in ultrarelativistic heavy ion collisions have become so precise, that the established models – coalescence and thermal – are also seeking to improve their precision. I present an alternative theoretical approach, where deuteron and triton are created and destroyed in the explicit pion and nucleon catalysis reactions. These reactions are built into the traditional transport approach, used to simulate heavy ion collisions. With calculations in this model I report current progress on understanding the connection between light nuclei production and the critical point of strongly-interacting matter.
