

粒子物理与原子核物理学科学学术报告

Lectures on the Effective Field Theory of Hydrodynamic Fluctuations

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日程安排 :

Lecture 1, 2024.09.07, 10:00 - 11:30, 东区二教2408

Lecture 2, 2024.09.07, 15:30 - 17:00, 东区二教2408

Lecture 3, 2024.09.08, 10:00 - 11:30, 东区二教2408

摘要 :

The search for the conjectured QCD critical point in the BES experiment requires consideration of fluctuations in the modeling of QGP hydrodynamics. Inspired by this, in these three lectures, we first review the bottom-up approach, i.e., Landau-Lifshitz noisy fluid dynamics. We will derive the corresponding MSR effective action for the diffusion. Then by introducing the top-down effective field theory approach in hydrodynamics, we will construct the Schwinger-Keldysh effective field theory describing diffusion.



报告人简介 : Navid received his PhD in 2013 from Sharif University of Technology, Tehran. After 5 years of postdoctoral research at IPM, Tehran, he joined the School of Nuclear Science and Technology, Lanzhou University as a full professor. His research focuses on non-equilibrium dynamics of many body systems. Most of his papers have been published in JHEP, PRL, PRD and PRC.