ICTS String Seminar

Title : Computing Infrared Observables in scattering

Speaker : Kartik Prabhu (Raman Research Institute, Bengaluru)

Date : Wednesday, 20 August 2025

Time : 3:30 PM (IST)

Abstract : The "infrared problem" is the generic emission of an infinite number of low-frequency quanta in any scattering process with massless fields, i.e. the memory effect.. The out-state does not lie in the standard Fock representation and the standard S-matrix is undefined as an operator on the standard Fock space. We then suggest an infrared-finite formulation of scattering theory in terms of correlation functions without any a priori choice of in/out Hilbert spaces. This is closely related to the Schwinger-Keldysh or in-in formalism. We show how even infrared observables, like the memory, can be computed in QFT using this method.

Venue : Emmy Noether Seminar Room
Zoom Link: https://icts-res-in.zoom.us/j/88092766911?pwd=R3ZrVk9yeW96ZmQ4ZG9KRzVhenRKZz09
Meeting ID: 880 9276 6911
Passcode: 232322