

An Analytic Prescription for t-channel Singularities

Wednesday, 18 February 2026 15:10 (20 minutes)

The t-channel singularity is a divergence in the scattering amplitude which occurs when a stable particle propagating in t-channel scattering process becomes an on-shell state. Such situations appear either in the system of collider experiments or in the context of the cosmological particle production. No scheme which is generally applicable is known. In this work, we propose a new formulation to identify and remove the source of the divergence. The scheme is fully analytical and various applications can be expected. This work provides a valuable tool in this research field. This talk Based on Phys.Rev.D 112 (2025) 7, 076020.

Presenter: SATO, Ryusei

Session Classification: parallel session A: EW