SEMPARIS – Séminaires en région parisienne

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Séminaire de matrices, cordes et géométries aléatoires

Vendredi 8 Novembre 2019, 14 :15
IPHT, Salle Claude Itzykson, Bât. 774
Domaines : hep-th

Titre : *Is the Scattering Amplitude Analytic in a Field Theory with a Compact Spatial Coordinate ?*

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Résumé : *It is recognized that higher dimensional spacetime D¿4 play an important role in physics. Khuri pointed out several years ago, in nonrelativistic potential scattering with a compact space dimension, that the forward scattering amplitude has nonanalytic behavior under certain circumstance. If such were the case in QFT (with a compact dimension) it will be matter of concerns. We consider a massive, scalar field in flat D=5 dimension and compactify a spatial coordinate on a circle. We study analyticity property of four point amplitude.*