Institut Henri Poincaré

11 rue Pierre et Marie Curie, 75231 Paris cedex 05

String Theory in Greater Paris

Rencontres Théoriciennes

“Supergravité, théorie des cordes et théorie M”

Jeudi 22 Septembre 2022, 10:00

Sadra Jazayeri

IAP

Cosmological Bootstrap in Slow Motion

Cosmological bootstrap is an attempt to formulate cosmological boundary correlators (in de Sitter and beyond) based on the fundamental principles of locality, unitarity, and symmetries. In this talk, I review the recent advances in this field with a particular focus on the cutting rules for the boundary wavefunction coefficients, which are implied by the unitary time evolution in the bulk. I will apply the cutting rules and additional bootstrap inputs to compute the imprints of heavy particles on inflationary correlation functions in situations where de Sitter boosts are strongly broken. I will identify the smoking gun footprint of supersonic particles during inflation as resonances in the soft limit of the inflationary three- and four-point functions.

Institut Henri Poincaré, salle 314, 3ème étage

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