



Contribution ID: 620

Type: Oral presentation

BB Scattering at $N_c=4$ for Stealth Dark Matter

Thursday, 29 July 2021 21:30 (15 minutes)

We study baryon-baryon scattering with Luscher's method for $N_c = 4$ gauge theory. To improve signal in our scattering observables, we employ the Laplacian Heaviside or Distillation method to construct low rank interpolating operators with good overlap with low lying energy states. Though of interest for large N_c QCD studies, the LSD collaboration has been investigating a dark matter candidate called stealth dark matter, which would be the neutral composite baryon of an $SU(4)$ gauge theory. In order to place constraints on dark matter self-interactions in this theory, we study BB scattering, and present here our preliminary results.

Primary author: Ms CUSHMAN, Kimmy (Yale University)

Presenter: Ms CUSHMAN, Kimmy (Yale University)

Session Classification: Particle physics beyond the Standard Model

Track Classification: Particle physics beyond the Standard Model