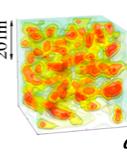
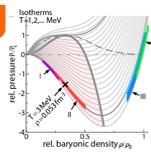


# Journée des Nouveaux Entrants du Pôle Théorie (JNE)



Jeudi 2 février 2023  
Amphi 1 - Bat. 210



ID de Contribution: 30

Type: Non spécifié

## Curing high-energy instability of quarkonium production cross sections with High-Energy Factorization

jeudi 2 février 2023 14:55 (5 minutes)

The problem of negative NLO cross sections of heavy quarkonium production at high collision energies is considered[1]. It arises due to unphysical behaviour of the high partonic energy asymptotics of NLO partonic coefficient function in collinear factorisation, which can be cured via matching of the NLO calculation with Leading-Logarithmic resummation of partonic center-of-mass energy logarithms. The latter resummation is done using the formalism of High Energy Factorisation.

[1] J.P. Lansberg, M. Nefedov and M.A. Ozcelik, Matching next-to-leading-order and high-energy-resummed calculations of heavy-quarkonium-hadroproduction cross sections JHEP 05, 083 (2022) doi:10.1007/JHEP05(2022)083 [arXiv:2112.06789 [hep-ph]].

**Auteurs principaux:** NEFEDOV, Maxim (IJCLab, Orsay); NEFEDOV, Maxim (Samara National Research University); NEFEDOV, maxim

**Orateurs:** NEFEDOV, Maxim (IJCLab, Orsay); NEFEDOV, Maxim (Samara National Research University); NEFEDOV, maxim

**Classification de Session:** Présentation des nouveaux postdocs