

QCD@LHC2022

28 November 2022 to 2 December 2022
IJCLab Orsay, France

Contribution ID: 162

Type: not specified

Joint TH EXP talks: Odderon and soft physics at the LHC Searching for odderon did we observe odderon in pp and p pbar scattering

Tuesday 29 November 2022 09:30 (30 minutes)

I will discuss new higher-order photon induced mechanisms which lead to asymmetry for pp and $p\bar{p}$ scattering. The effect will be discussed in the context of recent asymmetry between the original $D0$ data for $p\bar{p}$ at $\sqrt{s} = 1.96$ GeV and the pp quasi-data obtained by extrapolation from real LHC data. I will try to answer the question whether such a mechanism can replace the soft odderon exchange which was proposed recently to explain the current data.

I will discuss also some other reactions where the odderon exchange may occur. I will propose some reactions that are potentially attractive and feasible experimentally at the LHC.

The discussion will be in the broad context of the papers known from the literature.

Declaration

I certify that I have checked that I am authorised to submit the abstract with the listed co-authors with their current affiliations

Change of Speaker

I understand that change of speaker is allowed provided that no participant gives more than one talk. Otherwise, we will ask the speaker to choose between one or the other abstract to be presented.

Author: SZCZUREK, Antoni

Presenter: SZCZUREK, Antoni

Session Classification: Plenary

Track Classification: WG1: Higher Order and Resummed Calculations