

Current Status of the Odderon

четверг, 25 июля 2024 г. 10:15 (45)

Odderon is the C-odd amplitude which does not die out (or die very slowly) with energy. We consider the constraints on the Odderon properties and the perturbative QCD odderon given at the lowest α_s order by the three gluon exchange. Then we discuss the experimental indications for the odderon contribution to high energy proton-proton elastic scattering and some other processes in which the odderon may reveal itself.

References

ATLAS Collaboration, G. Aad et al., Eur. Phys. J. C 83, 441 (2023).

Odderon contribution in light of the LHC low- t data ,
E.G.S. Luna, M.G. Ryskin, V.A. Khoze, e-Print:2405.09385 [hep-ph]

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Session Classification : Morning session 25/07/2024

Track Classification : Diffractive scattering