

Fluctuations, Saturation, and Diffraction with DIPSY

Diffraction excitation is usually described by the Good–Walker formalism for low masses, and by the triple-Regge

formalism for high masses. In the Good–Walker formalism the cross section is determined by the fluctuations in the interaction. By taking the fluctuations in the BFKL ladder into account, it is possible to describe both low and high mass excitation by the Good–Walker mechanism.

In high energy pp collisions the fluctuations are strongly suppressed by saturation, which implies that pomeron exchange does not factorise between DIS and pp collisions. The Dipole Cascade Model reproduces the expected triple-Regge form for the bare pomeron, and the triple-pomeron coupling can be estimated.

Some notes will also be made on exclusive final states in this model.

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