Diffractive dissociation at the LHC

Emerson G. S. Luna (Institute for Particle Physics Phenomenology (IPPP) Durham University - UK & UFPEL)

We describe the formalism, and present the results, for a triple-Pomeron analysis of the available $p^{s} and p^{b} p^{s} and p^{b} p^{s} and p^{b} p^{s} and probability, <math>S^{2}$, in single proton diffractive corrections. In particular, we allow for the gap survival probability, S^{2} , in single proton diffractive dissociation. We show that the bare triple-Pomeron coupling that we extract from $p^{s} data$ is consistent with that obtained in a description of the $g m p \to J/psi + Y$ HERA data. Our results prefer the small size of the bare vertex, giving the hope of a smooth matching to the perturbative QCD treatment of the triple-Pomeron coupling.