

## Low-mass diffraction dissociation at the LHC

A model for low missing mass  $M_X$  diffraction dissociation (DD), based on the factorization properties of the high-energy, Pomeron-exchange scattering amplitude, is constructed. The properties of the inelastic  $Pp \rightarrow M_X$  transition form factors (inelastic vertices) are those known from  $\gamma p$  scattering at JLab, with the photon-Pomeron similarity assumed. The direct-channel, low-energy (=missing mass) baryon (protonic) trajectory is a non-linear, complex function providing for finite widths of baryon resonance lying on the protonic trajectory. The validity of finite-mass sum rules is tested, and predictions for low-mass DD cross sections at the LHC are given.

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