## Open Charm Production in Diffractive Deep Inelastic Scattering at HERA

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Measurements of D<sup>\*</sup>(2010) meson production are presented in diffractive deep inelastic scattering (5<Qsup2;<100 GeVsup2;), based on 287 pb<sup>-1</sup> of H1 HERA-II data recorded at the centre-of-mass energy sqrt(s)=319 GeV. The event topology is given by ep→eXY, where the system X, containing at least one D<sup>\*</sup> meson, is separated from a leading low-mass proton dissociative system Y by a large rapidity gap. The D<sup>\*</sup> candidates are reconstructed in the K $\pi\pi$  decay channel. The measured cross sections are compared with next-to-leading order QCD predictions obtained in the massive scheme. The calculations rely on the collinear factorization theorem and are based on diffractive parton densities previously obtained by H1 from fits of the inclusive diffractive cross sections. The measured data are further used to estimate the ratio of diffractive to inclusive open charm production in deep inelastic scattering.

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