

DIS 2015

XXIII International Workshop on  
Deep-Inelastic Scattering and  
Related Subjects

Dallas, Texas  
April 27 – May 1, 2015



Contribution ID: 61

Type: not specified

## Search for QCD Instanton-Induced Processes in Deep-Inelastic Scattering at HERA

Signals of QCD instanton-induced processes are searched for in deep-inelastic scattering at the electron-proton collider HERA in the kinematic region defined by the Bjorken-scaling variable  $x > 10^{-3}$ , the inelasticity  $0.2 < y < 0.7$  and the photon virtuality  $150 < Q^2 < 15000 \text{ GeV}^2$ . The search is performed using H1 data corresponding to an integrated luminosity of  $351 \text{ pb}^{-1}$ . No evidence for the production of QCD instanton-induced events is observed and upper limit is set on the instanton cross-section at 95% confidence level.

**Primary author:** H1, Collaboration (DESY)

**Co-authors:** DAUM, Karin (University of Wuppertal/DESY); SCHMITT, Stefan (Deutsches Elektronen-Synchrotron (DE))

**Presenter:** H1, Collaboration (DESY)

**Track Classification:** WG4 QCD and Hadronic Final States