

**Triggering of the Charged Current Interactions in  $e^-p$  collisions at the H1 Experiment** — •BILJANA VUJIČIĆ<sup>1</sup>, A. AKTAS<sup>2</sup>, J. BRACINIK<sup>1</sup>, C. BRAQUET<sup>1</sup>, A. DUBAK<sup>1</sup>, M. FRAS<sup>1</sup>, W. HABERER<sup>1</sup>, C. KIESLING<sup>1</sup>, M. KLUG<sup>1</sup>, A. NIKIFOROV<sup>1</sup>, and A. WASSATSCH<sup>1</sup> — <sup>1</sup>Max-Planck-Institut für Physik (Werner-Heisenberg-Institut), Föhringer Ring 6, 80805 München — <sup>2</sup>DESY, Notkestrasse 85, 22607 Hamburg

Deep Inelastic scattering of a high energetic electron on a nucleon with a large momentum transfer where a  $W^\pm$  boson is exchanged are called Charged Current interactions (CC). The CC interactions offer the possibility to study electroweak effects and give information on specific parton density functions in the proton at high  $x$  and high  $Q^2$ . These events are triggered using their specific signature in the Liquid Argon calorimeter, which is large missing transverse energy due to the undetected neutrino.

For the HERA II running with electrons, a new trigger is being used "The Jet Trigger". The Jet Trigger can improve the trigger efficiency in certain kinematic regions. The principle of the jet trigger is based on searching for significant local energy depositions in the calorimeter. This will allow lowering thresholds using the topological information of the jets found. The Jet Trigger will thus be able to select physics reactions with increased efficiency and higher background rejection.

Location: Berlin  
Date: 04.03.—09.03.2005  
Section: Particle Physics  
Subject: Data acquisition and triggering  
Presentation: Talk  
Email: bivuj@mppmu.mpg.de  
Membership: German Physical Society  
(number: )