

Abstract Submitted
for the APR08 Meeting of
The American Physical Society

Hard Photo-disintegration of proton pairs in ^3He RONALD GILMAN, Rutgers University, ELI PIASETZKY, ISHAY POMERANTZ, Tel Aviv University, JEFFERSON LAB HALL A COLLABORATION — Hard deuteron photo-disintegration has been investigated for 20 years, as its cross sections follow the constituent counting rules and it provides insight into the interplay between hadronic and quark-gluon degrees of freedom in high-momentum transfer exclusive reactions. We have now measured for the first time hard pp -pair disintegration in the reaction $\gamma\ ^3\text{He} \rightarrow pp + n$, using kinematics corresponding to a spectator neutron. The current state of the analysis will be shown. Clues to the underlying physics can be found in the comparison of our measurements with deuteron photo-disintegration, the energy dependence of the cross sections at 90° c.m., and the α_n distribution.

Ronald Gilman
Rutgers University

Date submitted: 13 Jan 2008

Electronic form version 1.4