Abstract Submitted
for the APR14 Meeting of
The American Physical Society

Studying Same Sign $W^{\pm}W^{\pm}$ Production at the LHC ALEXANDER SOOD, University of California - Berkeley, ATLAS COLLABORATION — The production of a pair of W bosons with the same electric charge is a process which has not been observed at the LHC. One of its dominant production mechanisms is through the vector boson scattering (VBS), whose unitarization relies on the electroweak symmetry breaking mechanism and makes VBS of great interest to study. This talk, together with the talk by Lulu Liu, will present a measurement of the inclusive same sign $W^{\pm}W^{\pm}$ cross section, as well as a further study of the production through VBS with the requirement that the two leading p_{T} jets are separated by at least 2.4 in rapidity (Δy). Limits are set on the anomalous quartic gauge couplings (aQGC). The analysis is performed using 20 fb^{-1} of data collected by the ATLAS detector at $\sqrt{s} = 8$ GeV. This talk will focus on the background estimations.

Alexander Sood
University of California - Berkeley

Date submitted: 07 Jan 2014 Electronic form version 1.4