## Abstract Submitted for the MAR16 Meeting of The American Physical Society

Scanning tunneling spectroscopy of tungsten disulfide<sup>1</sup> MICHAEL LODGE, CAMERON GLASSCOCK, MASA ISHIGAMI, University of Central Florida — Atomically thin layers of tungsten disulfide possess interesting optoelectronic properties characterized by strong photoluminescence. Here we perform scanning tunneling microscopy and spectroscopy measurements of 2H WS<sub>2</sub> on silicon oxide substrates to understand how electronic properties are affected by defects and substrate-induced disorder. Specifically, the electronic property of tungsten disulfide is probed as a function of gate-induced carrier density.

 $^1{\rm This}$  work is based upon research supported by the National Science Foundation under Grant No. 0955625.

Masa Ishigami University of Central Florida

Date submitted: 06 Nov 2015 Electronic form version 1.4