

Abstract Submitted  
for the MAR16 Meeting of  
The American Physical Society

**Fermiology in the Weyl semimetals (Nb,Ta)(As,P)** QIU RUN ZHANG, SHAHRIAR MEMARAN, DANIEL RHODES, BIN ZENG, SUVADIP DAS, EFSTRATIOS MANOUSAKIS, RYAN BAUMBACH, LUIS BALICAS, National High Magnetic Field Laboratory, NASSER ALIDOUST, M. ZAHID HASAN, Princeton University — We present a detailed angular and temperature dependent study of the quantum oscillatory phenomena in the Weyl semimetals, (Ta,Nb)(As,P) under high magnetic fields. In general we find that the P compounds exhibit larger Fermi surfaces with lighter effective masses when compared to the As ones. We show that for (Nb,Ta)As we can reach the quantum limit with the currently available magnetic fields, which seemingly leads to an electronic phase transition.

Qiu Run Zhang  
Florida State Univ

Date submitted: 06 Nov 2015

Electronic form version 1.4