

Abstract Submitted  
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**Fermiology Of Ce<sub>2</sub>Rh<sub>3</sub>Ge<sub>5</sub>** MARK WARTENBE, FSU — The competition between localized and delocalized f electrons in heavy fermion materials produces a wide variety of interesting physical phenomena. Among these compounds is Ce<sub>2</sub>Rh<sub>3</sub>Ge<sub>5</sub>. This heavy-fermion system undergoes an antiferromagnetic transition below 4K and exhibits an angle dependent magnetic phase transition around 25 tesla. In addition, RF conductivity measurements in pulsed field (65T) have revealed quantum oscillations. Temperature dependence at fixed angle indicates relatively heavy effective masses of values ranging from  $\sim 3m_e$  on up to  $\sim 10m_e$ . This indicates that the narrow f-electron density of states is partially hybridized close to the Fermi energy, but also places strict cryogenic constraints upon the measurement ( $^3\text{Helium}$  temperatures are required). Fermi surface calculations have produced complex figures which lend validation to such rich behavior. Presented are updated measurements including magnetization and revised theoretical calculations..

Mark Wartenbe  
FSU

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