

Abstract Submitted  
for the APR11 Meeting of  
The American Physical Society

**Shear Viscosity of the normal phase of Unitary Fermi Gas from the Epsilon Expansion** ANDREI KRYJEVSKI, North Dakota State University — An analytical technique similar to the Epsilon expansion in the theory of critical phenomena has been proposed for dilute Fermi gas with two body interaction characterized by infinite scattering length and zero effective range dubbed Unitary Fermi Gas (Nishida and Son, Phys.Rev.Lett.97:050403, 2006). I will present a leading order calculation of the normal phase shear viscosity. The ratio of viscosity to the entropy density is predicted to exceed the AdS/CFT conjectured bound by a factor of about 6.

Andrei Kryjevski  
North Dakota State University

Date submitted: 18 Jan 2011

Electronic form version 1.4