Abstract Submitted
for the MAR08 Meeting of
The American Physical Society

Drift Instability of a 2D Magnetoplasma in a Periodic Potential M. TAHIR, University of Sargodha, Sargodha, Pakistan, K. SABEEH, Quaid-i-Azam University, Islamabad, Pakistan, V. FESSATIDIS, Fordham University, Bronx, USA, N.J.M. HORING, Stevens Institute of Technology, Hoboken, USA
— We examine the drift instability of a magnetized 2D electron plasma in a weak periodic potential, taking account of a steady current. In this, we treat a strong magnetic field inducing Landau quantization, and analyze both the inter- and intra-Landau band plasmon spectra within the framework of the random phase approximation, determining the occurrence of magnetoplasmon instability as a function of drift speed.

Vassilios Fessatidis
Fordham University

Date submitted: 23 Nov 2007 Electronic form version 1.4