# JOINT INVERSE PROBLEM AND DIFFERENTIAL GEOMETRY/PDE SEMINAR

Tuesday, May 3, 2005
Guggenheim 317
2:30 pm
(Note: special place, day and time!)

## On Highly Oscillatory Partial Differential Equations

**Peter A. Markowich**
(University of Vienna & Wolfgang Pauli Institute)

We present classical WKB asymptotics and the modern phase space approach for semiclassical limit and homogenization problems. The important feature of the phase space approach, which is based on Wigner functions and Wigner measures, lies in the fact that caustics are 'unfolded' and thus can be crossed without difficulty. Typical examples are the Schrdinger equation, the Dirac equation, the Maxwell equations etc.

For more information about this seminar, visit the DG/PDE Seminar Web page (from the Math Department home page, `www.math.washington.edu`, follow the link **Seminars, Colloquia, and Conferences**).