Abstract for an Invited Paper for the DFD08 Meeting of The American Physical Society

Particle-Vortex Interaction in Superfluid Helium

CARLO F. BARENGHI, Newcastle University

The application of the classical Particle Image Velocimetry (PIV) technique in liquid helium has opened the way to better visualization of superfluid turbulence. To interpret the data, it is necessary to understand the interaction between micron-size tracer particles and vortex lines. This talk summarizes current understanding of this interaction resulting from theoretical and numerical calculations. In collaboration with Yuri A. Sergeev, Newcastle University.