

Abstract Submitted  
for the DFD10 Meeting of  
The American Physical Society

**Reconnection of quantized vortices and quantum turbulence<sup>1</sup>**

DANIEL LATHROP, University of Maryland — Turbulence in superfluid 4-Helium is dominated by reconnection and ring collapse. We utilize micron and nano-scale ice particles to visualize the dynamics of quantized vortices and the normal component. After briefly reviewing our observations of these phenomena, I will discuss reconnection dynamics at large and small scales. Those dynamics can be understood using scaling solutions and some ideas from dynamical systems. There is one underlying question we work to address: is there a single universal reconnection dynamics, do we need to consider a one or two parameter family of reconnection events?

<sup>1</sup>This work was done in collaboration with M.S. Paoletti, M.E. Fisher, and K.R. Sreenivasan, and is supported by the NSF DMR

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Date submitted: 02 Aug 2010

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