

Abstract Submitted  
for the MAR17 Meeting of  
The American Physical Society

**Vortex rings : a probe for Turbulence ?** STEPHANE PERRARD,  
WILLIAM T M IRVINE, James Franck Institute, University of Chicago — How  
does a vortex ring evolve in a turbulent environment ? We investigate this question  
by performing a scattering experiment in which a vortex ring is shot through a tur-  
bulent background flow. We track the evolution of the vortex loop and the turbulent  
flow using either particle image velocimetry (PIV) or vorticity line tracking. I will  
present our observations of how the ring deforms and stretches as it wrestles with the  
background turbulence and discuss how this type of experiment could tell us more  
about the dynamical evolution of structures in a turbulent flow.

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Date submitted: 11 Nov 2016

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