

Abstract Submitted  
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**Nonlinear quantum hydrodynamics in Bose-Einstein condensates**

PETER ENGELS, COLLIN ATHERTON, Washington State University — Bose-Einstein condensates are quantum fluids governed by nonlinear interatomic interactions. They provide an excellent tool to study intriguing phenomena in the field of nonlinear hydrodynamics. We will report on hydrodynamics experiments carried out in a newly constructed BEC apparatus at Washington State University, Pullman. Current research directions include quantum shock waves and parametric resonances. We will describe the current results and future directions.

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