

Abstract Submitted  
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**Vortex Lattices in a Crossed-Beam Optical Dipole Trap<sup>1</sup>**

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Amherst College — We report on experimental studies of rotating  $^{87}\text{Rb}$  Bose-Einstein condensates confined in a crossed-beam optical dipole trap. We observe vortex lattice lifetimes that are comparable to condensate lifetimes — on the order of seconds — despite the absence of strict cylindrical symmetry in the trap. The purely optical confinement permits experiments that explore the behavior of rotating multicomponent (spinor) condensates. Recent progress and future prospects will be discussed.

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