Abstract Submitted
for the DAMOP17 Meeting of
The American Physical Society

Multicomponent solitons in dilute-gas BECs[1] VANDNA GOKHROO, THOMAS M. BERSANO, M. A. KHAMEHCHI, PETER ENGELS, Washington State University — Dilute-gas Bose-Einstein condensates can host an intriguing variety of nonlinear structures. In effectively one-dimensional geometries, solitonic excitations play a prominent role. While soliton physics in general is very rich, only a limited number of soliton types have been realized in BECs so far. Here we report on the experimental observation of novel types of solitons in multicomponent systems, including the dark-antidark soliton which is related to the recently introduced notion of magnetic solitons in BECs.

[1]We gratefully acknowledge funding from NSF.

Peter Engels
Washington State University

Date submitted: 28 Jan 2017 Electronic form version 1.4