

Abstract Submitted
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Counterflow induced modulational instability in miscible, two-component BECs¹ CHRIS HAMNER, JIAJIA CHANG, PETER ENGELS, Washington State University — In this talk we will describe our recent and ongoing experiments investigating modulational instability in a miscible, two-component Bose-Einstein condensate. We find that such a modulational instability can be induced by generating sufficiently fast counterflow of two superfluid components. The instability leads to the proliferation of novel dark-dark vector solitons which can experience a transverse (snake) instability. To our knowledge this is the first time that this type of soliton has been experimentally realized in a Bose-Einstein condensate.

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