Abstract Submitted
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Phase winding a BEC into a soliton train[1] CHRIS HAMNER, JIAJIA CHANG, PETER ENGELS, Washington State University — We present an experimental investigation studying the phase winding of a two spin component Bose-Einstein Condensate in an elongated optical dipole trap. The winding is generated by performing near resonant Rabi oscillations in the presence of a weak magnetic gradient. We investigate the winding dynamics and experimentally show that the resulting spin domains can be converted into trains of filled solitons.

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