

DAMOP09-2009-000051

Abstract for an Invited Paper
for the DAMOP09 Meeting of
the American Physical Society

Dynamics and generation of fractionalized vortices in spinor BECs¹

FEI ZHOU, University of British Columbia

Quantum number fractionalization is one of the most fascinating concepts studied in modern many-body physics and topological field theories. In this talk, I am going to first discuss the basic concept of vortex fractionalization in spinor BECs and peculiar interactions between these fractionalized excitations. The second half of my talk will be focused on dynamics, and possibilities of generating and probing these exotic excitations in BECs of cold atoms.

¹Supported by Canadian Institute for Advanced Research and NSERC (Canada)