

CMP Seminar
Michigan State University

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Search for new Superfluid States in ^3He

Liquid ^3He is the paradigm for exotically paired superfluids/superconductors. It is ultra clean and has the simplest Fermi surface. The superfluid state that emerges below 2.5 mK can be modified by disorder and confinement to alter the stability of the A and B phases that emerge in the bulk. I will describe two experiments one with disorder imprinted into the fluid and the other in a well characterized nanofluidic cavity where the well known bulk phase diagram is significantly altered. I will also briefly discuss future experiments on even more confined ^3He where we anticipate that interesting new phenomena may be found.

Monday, September 26, 2016

4:10 p.m.

BPS 1400

Prof. Mark Dykman - Host