

Superfluid quantum gases on a shell

Prof. H el ene Perrin

Laboratoire de physique des lasers (LPL), Universit e Sorbonne Paris Nord

Quantum gases offer an exquisite playground for the study of superfluid dynamics: they can be easily manipulated, confined in arbitrary potential landscape, and imaged efficiently. In this talk, I will present a couple of experiments where a quantum gas is confined on the surface of shell. I will discuss the fate of the gas as it rotates fast at the bottom of the shell, as well as tentatives to fill the shell with atoms to get a full bubble of superfluid.