

Abstract Submitted
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Rotation of fermions in a two dimensional lattice with a harmonic trap¹ TUN WANG, SUSANNE YELIN, Univ. of Connecticut — Rotation of fermions in a lattice is studied using a Hubbard model. It is found that the fermions are still contained in the trap even when the rotation frequency is larger than the trapping frequency. This is very different from the behavior in continuum. Bragg scattering and coupling between angular and radial motion are believed to make this stability possible. In this regime, density depletion at the center of the trap can be developed for spin polarized fermions.

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