

Abstract Submitted
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Fermionic stabilization and density-wave ground state of a polar condensate. OMJYOTI DUTTA, RINA KANAMOTO, PIERRE MEYSTRE, University of Arizona — We examine the stability of a trapped dipolar condensate mixed with a single-component fermion gas at $T = 0$ in a pancake and cigar shaped trap. Whereas the density wave state in dipolar condensates with small s-wave interaction are unstable towards collapse, we find that the admixture of fermions can significantly stabilize them, depending on the strength of the boson-fermion interaction.

Omjyoti Dutta
University of Arizona

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