

Abstract Submitted  
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**Three-Component Fermi Gases in Two Dimensions** THOMAS KIRK, MEERA PARISH, London Center Nanotechnology, CONDENSED MATTER AND MATERIALS PHYSICS TEAM — We study a three-component Fermi gas in two spatial dimensions using a two-channel model. We investigate both few- and many-body properties of the gas, and we construct the ground-state phase diagram as a function of the effective range and coupling strength. We discuss how such a system may be experimentally realisable in the context of cold-atomic gases.

Thomas Kirk  
London Center Nanotechnology

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