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Induced p-wave superfluidity at unitarity in strongly imbalanced Fermi gases[1] KELLY PATTON, DANIEL SHEEHY, Louisiana State University — We compute the induced interaction among the majority spin-up fermions, due to the presence of the minority spin-down fermions, in a population imbalanced Fermi gas. This interaction leads to an instability of the spin-polaron Fermi liquid, favoring a p-wave superfluid. For the majority component, near unitarity, the transition temperature is found to be within experimental reach, of order a few percent of the Fermi energy. As a probe of this phase, the radio-frequency spectroscopic line-shape is calculated for the $p_x + ip_y$ ground state.

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