Fermionic Paired Superfluids at High Rotation Rate\textsuperscript{1} MARTIN Y. VEILLETTE, DANIEL E. SHEEHY, VICTOR GURARIE, LEO RADZIHOVSKY, University of Colorado — I will describe our recent work on rotating resonantly-paired superfluids, mapping out the Feshbach resonance detuning, temperature and rotational frequency phase diagram. I will compare our predictions with the recent experiments on degenerate atomic $^6$Li gases across a Feshbach resonance [Zwierlein et al. Nature \textbf{435}, 1047 (2005)] and will make proposals for future experiments in such systems.

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