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**Competition between final-state and pairing-gap effects in the radio-frequency spectra of ultracold Fermi atoms**

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Ultracold Fermi atoms allow the realization of the crossover from Bardeen-Cooper-Schrieffer (BCS) superconductivity to Bose-Einstein condensation (BEC), by varying with continuity the attraction between fermions of different species. In this context, radio-frequency spectroscopy provides a microscopic probe to infer the nature of fermionic pairing. In the strongly-interacting regime, this pairing affects a wide temperature range comprising the critical temperature Tc, in analogy to the pseudo-gap physics for high-temperature superconductors. By including final-state interactions affecting the excited level of the transition, calculations are here reported of radio-frequency spectra of ultracold Fermi atoms with balanced populations, both below and above Tc, and compared with available experimental data. In the superfluid phase below Tc our calculation rests on the use of the BCS-RPA approximation, while in the normal phase above Tc it includes the Azlamazov-Larkin type contribution which is familiar in the theory of "paraconductivity" fluctuations in superconductors, besides the density-of-states contribution. In both cases, the limit of a molecular spectrum is correctly recovered in the BEC regime of the crossover. A competition is revealed between pairing-gap effects which tend to push the oscillator strength toward high frequencies away from threshold and final-state effects which tend instead to pull the oscillator strength toward threshold. In addition, an energy scale associated with pairing is extracted from the spectra and related to a universal quantity recently introduced for Fermi gases.