Radiofrequency response and thermodynamic properties of the Fermi polaron

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The Fermi polaron, a particle dressed by excitations of a fermionic medium, is a problem that arises in multiple contexts: From cold atomic gases, to doped semiconductors, and all the way to neutron stars. I will discuss recent theory progress [1,2,3] toward understanding the static and dynamic properties of such polarons, and how this matches well with recent experiments on ultracold Fermi gases.

[1] Liu, Shi, Parish, Levinsen, *Phys. Rev. A* **102**, 023304 (2020).

[2] Liu, Shi, Levinsen, Parish, *Phys. Rev. Lett.* **125**, 065301 (2020).

[3] Parish, Adlong, Liu, Levinsen, *Phys. Rev. A* **103**, 023312 (2021).