

## Observing the propagation of shear in heavy electron Fermi-liquids

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The zero temperature Fermi-liquid is a remarkable affair—although it is a liquid not breaking the symmetry of space when the Landau parameter  $F_s^1$  governing the mass of the quasiparticles becomes larger than a critical value it supports propagating shear modes. These were observed in  $^3\text{He}$  in the 1970's but the question arises whether such a propagating shear also exists in the heavy fermion metals. Only photons couple to these modes with the implication that one can only probe them at very small momenta. But there is a way: we predict that gigantic oscillations occur in the transmission through thin slabs as function of frequency.

[1] D. Valentinis, J. Zaanen and D. van der Marel, Scientific Reports 11, 1 (2021).