

Abstract for an Invited Paper  
for the DAMOP12 Meeting of  
The American Physical Society

**Equation of state of strongly interacting fermions<sup>1</sup>**

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Based on very general principles, Thermodynamics provides powerful tools to characterize the macroscopic properties of any physical system. Even though its origin can be traced back the XIXth century's industrial revolution, I will show how this theory provided the framework and the key ingredients leading to a precise quantitative understanding of the properties of the strongly correlated Fermi gases that were recently obtained thanks to the progress in the manipulation of ultracold atoms.

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