



THE CHINESE UNIVERSITY OF HONG KONG
Department of Physics
Institute of Theoretical Physics
SEMINAR

Exact Relations for a Strongly Correlated Fermi Gas and a Novel Mathematical Method

by

Dr. Shina Tan
Department of Physics
Yale University

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ALL INTERESTED ARE WELCOME

Abstract

Two-component ultracold atomic Fermi gases with large scattering length are important strongly correlated many-body systems. Their properties are difficult to predict, especially in the interesting case of imbalanced populations. It is shown that one can nevertheless derive several universal exact relations, exploiting the fact that the range of the interaction is short. A novel mathematical technique is used to make the derivation of these results easier.

Enquiries: 2609 6339