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Dynamics of Two Dimensional Bose Gases and the Role of Scale Invariance JEFF MAKI, Univ of British Columbia — The controllable study of dynamics has become commonplace in cold atom experiments. However, the theoretical exploration of dynamics has relied heavily on numerical simulations due to the vast complexity of dynamical many body problems. The situation is simplified in two dimensional Bose gases thanks to the presence of scale invariance. This symmetry is presumed to have an important effect on the dynamics of the system but has yet to be studied in the context of cold gases. In this talk we report a study of interacting two dimensional Bose gases and the role scale invariance plays on the system's dynamics.

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