

DAMOP18-2018-000539

Abstract for an Invited Paper
for the DAMOP18 Meeting of
the American Physical Society

Dynamics of a Bose gas quenched to unitarity¹

ROBERT SMITH², University of Oxford, UK

I will give an overview of our recent work on the dynamics of homogeneous Bose gases quenched to unitarity (where the inter-particle interaction strength is as strong as allowed by quantum mechanics). Our work includes studies of atom loss, molecular correlation and momentum distribution dynamics. I will discuss the universal scaling laws that describe the behavior we observe and what they reveal about the unitary Bose gas.

¹Supported by the Royal Society and the EPSRC.

²This work was carried out at the University of Cambridge.