

Abstract Submitted
for the MAR15 Meeting of
The American Physical Society

Odd frequency Bosonic and Fermionic condensate¹ ALEXANDER BALATSKY, Los Alamos Natl Lab, Nordita — We introduce the concept of the odd-frequency Bose Einstein Condensate (BEC), characterized by the odd frequency/time two-boson expectation value. To illustrate the concept of odd frequency BEC we present simple classification of pair boson condensates that explicitly permits this state. We point qualitative differences of odd-frequency BEC with conventional BEC and introduce the order parameter and wave function for the odd-frequency BEC [1]. This step extends the classification of the odd frequency states typically discussed in the context of odd frequency fermion pairing [2].

[1] Odd-frequency Two Particle Bose-Einstein Condensate A.V. Balatsky, arXiv:1409.4875

[2] Odd-frequency superconducting pairing in multiband superconductors, Annica M. Black-Schaffer and Alexander V. Balatsky, Phys. Rev. B 88, 104514, (2013).

¹Work supported by US DOE BES E304 and KAW.

Alexander Balatsky
Los Alamos Natl Lab, Nordita

Date submitted: 14 Nov 2014

Electronic form version 1.4