

Abstract Submitted
for the NES05 Meeting of
The American Physical Society

Separation of Wave and Particle Fluctuations to Higher Orders

NORMA M. CHASE, School of Arts and Sciences, Massachusetts College of Pharmacy and Health Sciences — By extending Einstein's separation of wave and particle parts of the second order thermal fluctuation to encompass "generalized" fluctuations in any Bose field, P. E. Gordon proposed alternative definitions for n th order coherence and n th order coherent states. This paper proves the equivalence of Gordon's coherence conditions to those of Glauber. We then examine some of the physical implications of extending duality to higher orders.

Norma M. Chase
School of Arts and Sciences, Massachusetts College of Pharmacy and
Health Sciences

Date submitted: 04 Mar 2005

Electronic form version 1.4