2004 Vol. 41 No. 6 pp. 833-836 DOI:

" Einstein Moon" , " Schrödinger Cat" , and " Quantity in Phase Space" — About Quantum Measurement (I)

REN De-Ming

Department of Physics, Peking University, Beijing 100871, China (Received: 2003-9-19; Revised:)

Abstract: Generalizing the idea involved in a previous paper [Commun. Theor. Phys. (Beijing, China) 41 (2004) 685], "quantity in phase space" is introduced. Thus starting from quantum mechanics, with standard criteria, the disappearing of interference in a macroscopic system is explicitly shown. Then the confusions involved in "the Einstein Moon" and "the Schrödinger Cat" are clarified, at least principally.

PACS: 03.65.Bz, 03.67,Hk

Key words: quantum measurement, quantum communication

[Full text: PDF]

Close