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Title:	On the Spontaneous Localization Process of Many-Particle System
Authors:	Bhati, Rajendra Singh (/jspui/browse?type=author&value=Bhati%2C+Rajendra+Singh)
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Abstract:	Quantum Mechanics has met severe difficulties in accounting for the measurement problem. Apart from the re-interpretative and decoherence approaches an attempt based on consideration of stochastic and nonlinear modification to standard Schrodinger Equation has also been made [9]. The new dynamics unifies micro and macroscopic phenomena. The formalism of the dynamics is reviewed. We re-analyze the approach taken by G.C. Ghirardi, P. Pearle, A. Rimini [10] and A. Bassi [12] to treat spontaneous collapse process for many-particle systems. A claim was made in earlier work that due to heavier center of mass, spread in center of mass position reduces very fast and behaves like a classical particle. A big aw in their approach showing inconsistency of their claims with those of quantum mechanics is presented. We propose a legitimate method to explain wavepacket reduction of entangled particles and investigate the role of interaction in wavepacket reduction process using GRW model.
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