Bohm's Mysterious 'Quantum Force' and 'Active Information': Alternative Interpretation and Statistical Properties

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An alternative interpretation to Bohm's 'quantum force' and 'active information' is proposed. Numerical evidence is presented, which suggests that the time series of Bohm's 'quantum force' evaluated at the Bohmian position for non-stationary quantum states are typically non-Gaussian stable distributed with a flat power spectrum in classically chaotic Hamitonian systems. An important implication of these statistical properties is briefly mentioned.

Key words: Bohm's Quantum Force; Active Information; Stable Distribution; Power Spectrum; Chaotic System.