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Deformable media with quantized effects

Heng Xiao^{1,2}¹Jinan University, China²Shanghai University, China

There exist new deformable media of the following unusual and unique properties: they exhibit quantized effects just as usually known quantum entities do; the strongly coupled nonlinear dynamic equations governing the dynamic responses of these media are exactly reducible to eventually give rise to a fundamental linear dynamic equation governing a complex field variable, in the sense of enabling exact closed-form solutions for all the dynamic field variables; this fundamental dynamic equation and this complex field variable are just the Schrödinger equation and the wave function in quantum theory and accordingly; all quantized effects and the spin effects with the intrinsic angular momentum, commonly known for quantum entities, are in a natural and unified manner incorporated as inherent dynamic features of these media. Thus follow new and complete dynamic patterns for quantum entities, in which the physical origins and meanings of both the wave function and Schrödinger equation become self-evident and any indeterminacy of probabilistic nature becomes irrelevant.

Biography

Heng Xiao obtained his PhD in 1990 at Shanghai University, China. From 1995 to 2000, he was Associate Professor at College of Mathematical Sciences, Peking University, China. At Institute of Mechanics, Ruhr-University Bochum, Germany, he successively held the following positions: Alexander von Humboldt fellow from 1995 to 1997, Scientific Assistant from 1998 to 2001 and Chief Engineer & Professor from 2002 to 2011. From 2011 to 2017, he was Professor at College of Science, Shanghai University, China. From 2017, he is Professor at College of Mechanics and Construction Engineering, Jinan University, Guangzhou, China.

xiaoheng@shu.edu.cn

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