

## عنوان مقاله:

Review on application of nonlocal elasticity theory approaches in graphene sheets

## محل انتشار:

دومین همایش ملی ریاضیات و کاربردهای آن در علوم مهندسی (سال: 1394)

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## خلاصه مقاله:

This paper reviews the recent journals (up to 2015) on the application of the nonlocal elasticity theory in modeling of Graphene sheets. A variety of nonlocal elasticity models in modeling of Graphene sheets under static and dynamic loadings including bending, buckling and vibration are introduced and reviewed. An introduction of nonlocal elasticity theory and superiority of it to the classic theory, the necessity of the precision of the nonlocal parameter, and the applicability of nonlocal elasticity models are discussed. Brief explanation and recommendations for future research in analyzing Graphene sheets are also provided. Nonlinear analysis and using exact numerical methods are two of important subjects for future purposes and are scarcely considered in published papers. While vibration is the most Popular subject in Graphene sheets papers, bending analyses got the least attention among researches of this field. This paper is intended to provide an introduction of the development of the nonlocal elasticity theory in modeling the Graphene sheets, review the different nonlocal elasticity models, and inspire further applications of the nonlocal elasticity theory to Nano-material modeling.

## کلمات کلیدی:

Review, Application, nonlocal elasticity, Graphene

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