

عنوان مقاله:

Strain Analysis of Common Map Projections in Iran Using Continuum Mechanics Concepts

محل انتشار:

کنفرانس بین المللی پژوهش در مهندسی، علوم و تکنولوژی (سال: 1394)

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خلاصه مقاله:

Some of the most commonly used map projections, are analyzed from the viewpoint of the deformation introduced, when the objective surface is mapped into a plane. The analysis of the strain tensor structure is carried out concerning map projections with particular interest on invariant scalar strain parameters, i.e., dilatation and maximum shear strain. After a short theoretical account, graphs for the computation of these parameters are given for common projection systems in Iran. These projection systems include UTM and Lambert conic map and other projections. The derived parameters of these projection systems may be used as criteria for the choice of a convenient map projection in the interested region in addition to the traditional criteria of conformality, equivalence, etc. The theory of this subject has been developed by A. DERMANIS and E. LIVIERATOS and in this paper we only apply it to the map projections used in the region of Iran.

کلمات کلیدی:

map projection, graphs, dilatation

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