

عنوان مقاله:

A Note on the Incorrect and Legitimate Definitions of Anisotropic Shear Strength in Granular Materials

محل انتشار:

یازدهمین کنگره ملی مهندسی عمران (سال: 1398)

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خلاصه مقاله:

Shear strength of anisotropic granular materials has been often expressed as a function of the orientation of the major principal stress direction or inclination of the stratification. This definition can be shown to be generally wrong as it violates one of the fundamental axioms of constitutive modeling in the context of classical continuum mechanics, i.e. the invariance under superposed rigid motion. Once it has been shown to be incorrect, the righteous definition of the yield criterion has been introduced which was pointed out by early works of Hill and later by Mróz and Pietruszczak during the last decades. One legitimate procedure by the implementation of the so-called microstructure tensor is presented and applied to a simple packing of particles. The discussion is made between incorrect and legitimate definitions of anisotropy

کلمات کلیدی:

.Plasticity, Constitutive Laws, Objectivity, Microstructure Tensor, Granular Materials

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