

## عنوان مقاله:

Boundary Element Method and its Applications for Plate Tectonic Deformation Modeling

## محل انتشار:

دهمین کنگره بین المللی مهندسی عمران (سال: 1394)

تعداد صفحات اصل مقاله: 9

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## خلاصه مقاله:

Plate tectonic theory has provided a means to derive kinematics of plate margins, but analysis is limited when working on intra-continental deformation like Iran plateau because, by definition, plates are rigid and do not deform. Nevertheless, knowledge of the relative poles of rotation between two plates allows us to derive components of the deformation field in a diffusely deforming zone between two plates. Other methods to derive the strain field include the use of high precision surveying (e.g., global positioning satellite system) and various geologic markers (e.g., faults, dikes, etc.). The former is limited to timescales that may be more representative of inter-seismic deformation and in response to the activity of perhaps a limited number of faults in any particular region. In this case, these observations may not represent the long-term average. The use of geological markers may be limited by the local setting (e.g., influenced by local anomalies in the regional stress field) or, in a practical sense, by the extensive amount of data needed to determine the regional stress field.

## کلمات کلیدی:

Plate Tectonic, Boundary Element Method, Displacement Discontinuity, Green Functions

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/364222>

