عنوان مقاله:

DUAL BOUNDARY ELEMENT ANALYSIS OF CRACKED PLATES

محل انتشار:

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نویسنده:

.A. Portela – Universidade deÉvora, Escola de Ci ˆencias e Tecnologia, ۷۰۰۴-۵۱۶Évora, Portugal

خلاصه مقاله:

The dual boundary element method is formulated for the analysis of linear elastic cracked plates. The dual boundary integral equations of the method are the displacement and the traction equations. When these equations are simultaneously applied along the crack boundaries, general crack problems can be solved in a single-region formulation, with both crack boundaries discretized with discontinuous boundary elements. The stress intensity factors evaluation is carried out by the J-integral decomposition method which is applied on a circular path, defined around each crack tip. Examples of geometries with edge, and embedded cracks are analyzed. The accuracy and e_ciency of the dual boundary element method and the J-integral make the present formulation ideal .for the study of cracked plates

کلمات کلیدی:

Dual boundary integral equations, Crack modelling, Computation of

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