عنوان مقاله:

A GRAPH THEORETICAL APPROACH FOR REGION IDENTIFICATION IN CONTINUUM TOPOLOGY OPTIMIZATION

محل انتشار:

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خلاصه مقاله:

During the process of continuum topology optimization some pattern discontinuities may arise. It is an important challenge to overcome such irregularities in order to achieve or interpret the true optimal layout. The present work offers an efficient algorithm based on graph theoretical approach regarding density priorities. The developed method can recognize and handle solid continuous regions in a pre-optimized media. An illustrative example shows how the proposed priority guided trees can successfully distinguish the most crucial parts of the continuum during topology optimization.

کلمات کلیدی:

Continuum topology optimization, graph theory, natural associated graph, priority guided tree.