

عنوان مقاله:

Spline Technique Based Mesh Generation for Hydrodynamic Simulations

محل انتشار:

ششمین کنفرانس بین المللی مهندسی عمران (سال: 1382)

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خلاصه مقاله:

The methods of geometric modeling, well known in computer science and engineering, are used as the theoretical background for a new approach to generate element meshes. At first the bathymetries are approximated by free form surfaces, on which in a second step the element mesh will be generated. Spline techniques are adapted and applied for the free form surface editor functionality and for the approximation process of the bathymetry. Based on these free form surfaces elements are generated and refined according to different refinement criteria. With several examples the accuracy and efficiency of this approach to generate element meshes is demonstrated.

کلمات کلیدی:

Geometric modeling, bathymetry approximation, mesh generation for hydrodynamic simulations

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