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The panel clustering method in 3-D BEM. (English) Zbl 0901.65070

Papanicolaou, George (ed.), Wave propagation in complex media. New York, NY: Springer. IMA Vol. Math. Appl. 96, 199-224 (1998).

The panel clustering algorithm is applied to 3-D boundary elements. Considerable computer savings in the dense and unsymmetric system of equations generation and solution can be observed. A numerical test for a potential problem is used to illustrate the computer saving in the Galerkin and point collocation implementations.

For the entire collection see [\[Zbl 0880.00025\]](#).

Reviewer: [J.C.F.Telles \(Rio de Janeiro\)](#)

MSC:

[65N38](#) Boundary element methods for boundary value problems involving PDEs Cited in 1 Document
[35J05](#) Laplace operator, Helmholtz equation (reduced wave equation), Poisson equation

Keywords:

[Galerkin method](#); [Laplace equation](#); [numerical example](#); [panel clustering algorithm](#); [boundary elements](#); [collocation](#)