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Application of sigmoidal transformations to weakly singular and near-singular boundary element integrals. (English) [Zbl 0935.65130](#)

Int. J. Numer. Methods Eng. 45, No. 10, 1333-1348 (1999).

This paper presents a clear contribution to the ever important subject of efficiently computing numerical integrals over boundary elements. Here, a coordinate transformation technique, based on sigmoidal transformations, is implemented to compute weakly singular and nonsingular integrals. The complete approach is presented in a practical and well-written manner and the promising technique is compared with existing alternative procedures.

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

MSC:

65N38 Boundary element methods for boundary value problems involving PDEs

65D32 Numerical quadrature and cubature formulas

Cited in **1** Review
Cited in **46** Documents

Keywords:

[sigmoidal transformations](#); [boundary element integrals](#); [singular integrals](#)

Full Text: [DOI](#)

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