

The Superconvergence of Certain Two-Dimensional Cauchy Principal Value Integrals

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Summary

The composite rectangle (midpoint) rule for the computation of multi-dimensional singular

integrals is discussed, and the superconvergence results is obtained. When the local coordinate is coincided with certain priori known coordinates, we get the convergence rate one

order higher than the global one. At last, numerical examples are presented to illustrate our theoretical analysis which agree with it very well.

