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Approximate solution
of the two-dimensional singular integral equation

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Abstract: In this study, approximate quadrature formulas for numerical calculation of two-dimensional Vekua potential and singular integrals are obtained. The mechanical quadrature method for two-dimensional quasilinear singular integral equation with Vekua operators is described. The numerical results are compared with the exact solution of the integral equation.

Keywords: two-dimensional singular integral, singular integral equation, mechanical quadrature method.

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