Practically, the authors put down two numerical algorithms and a scheme for the numerical solution of a two-dimensional Stokes problem via Muskhelishvili’s integral equation.

The first algorithm refers to some modifications in solving the overdetermined system of linear equations in the Chebyshev norm. The second one deals with a numerical estimation of the singular Cauchy integral involved in the numerical solution of Muskhelishvili’s equations.

Reviewer: C.I.Gheorghiu

MSC:

65Z05 Applications to the sciences
65N38 Boundary element methods for boundary value problems involving PDEs
65R20 Numerical methods for integral equations
35Q30 Navier-Stokes equations
76D07 Stokes and related (Oseen, etc.) flows
45E05 Integral equations with kernels of Cauchy type

Keywords:

algorithms; two-dimensional Stokes problem; Muskhelishvili’s integral equation; overdetermined system of linear equations; Chebyshev norm; singular Cauchy integral