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# Numerical Conformal Mapping via a Fredholm Integral Equation using Fourier Method

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## ABSTRACT

An interpolation formula based on Fourier method for the numerical solution of a Fredholm integral equation related to conformal mapping of a simply connected region onto a unit disc is presented. The integral equation involves the Neumann kernel. The numerical results obtained from the interpolation formula based on Fourier method are then compared with the numerical results obtained from the interpolation formula based on Nyström's method. Numerical comparison shows that the interpolation formula based on Nyström's method gives better performance. Numerical implementations on some test regions are presented.