# Numerical Inversion of the Abel Integral Equation using Homotopy Perturbation Method

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Many problems in physics like reconstruction of the radially distributed emissivity from the line-of-sight projected intensity, the 3-D image reconstruction from cone-beam projections in computerized tomography, etc. lead naturally, in the case of radial symmetry, to the study of Abel's type integral equation. The aim of this communication is to propose a new algorithm for the Abel inversion by using the homotopy perturbation method.

*Key words:* Abel's Inversion; Homotopy Perturbation Method.