

## عنوان مقاله:

Finding the solution of a nonlinear matrix problem by an inverse-free iteration scheme

## محل انتشار:

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## خلاصه مقاله:

In this work, an iterative method under the umbrella of inverse-free methods which do not rely on the calculation of the inverse matrix per loop is proposed for finding the maximal solution of a well-known nonlinear matrix equation (NME) in the form of Hermitian positive definite (HPD) matrices. The computational of the minimal solution is discussed as well. The iterative scheme is constructed based on methods for finding generalized matrix inverse. We illustrate some estimations for obtaining the solution, and its convergence. To ensure its validity and usefulness, some experiments are run which reveal the superiority of the proposed method.

## کلمات کلیدی:

inverse-free, iteration scheme, Nonlinear matrix equations, Hermitian positive definite

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1628664>

