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Two-step Ulm-Chebyshev-like method for inverse singular value problems. (English)
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Summary: In this article, a two-step Ulm-Chebyshev-like method is proposed for solving inverse singular value problems. Under some mild assumptions, we prove that the proposed method converges cubically. Numerical implementations demonstrate the effectiveness of the new method.

MSC:
65F18 Numerical solutions to inverse eigenvalue problems
15A18 Eigenvalues, singular values, and eigenvectors

Keywords:
cubically convergent; inverse singular value problems; two-step Ulm-Chebyshev-like method

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