

[Chuiko, S. M.](#)

**On the solution of the linear matrix equations.** (Russian. English summary) [Zbl 1363.15024](#)  
[Visn. Khark. Univ., Ser. Mat. Prykl. Mat. Mekh. 82, 27-33 \(2015\).](#)

Summary: Linear matrix equations widely used in the theory of stability of motion, control theory and signal processing. We suggest an algorithm for finding solutions of the inhomogeneous generalized matrix equation and, in particular, the Sylvester equation in general case when the linear matrix operator  $L$ , corresponding to the homogeneous part of the linear generalized matrix equation, has no inverse.

**MSC:**

[15A24](#) Matrix equations and identities  
[65F30](#) Other matrix algorithms (MSC2010)

Cited in **1** Document

**Keywords:**

[Lyapunov matrix equation](#); [Sylvester matrix equation](#); [pseudoinverse matrix](#); [algorithm](#)