

MATEMATISKA INSTITUTIONEN
STOCKHOLMS UNIVERSITET
Avd. Matematik

SJÄLVSTÄNDIGT ARBETE I MATEMATIK

Torsdagen den 9 juni kl. 10.00–11.00 presenterar Jakub Olczak sitt arbete “Practical Linear Algebra for Applied General Linear Systems” (15 högskolepoäng, grundnivå).

Handledare: Paul Vaderlind

Plats: Sal 31 (**obs!**), hus 5, Kräftriket

Abstract: We study the underlying theory of matrix equations, their interpretation and develop some of the practical linear algebra behind the standard tools used, in applied mathematics, to solve systems of linear equations: the LU factorization, the QR factorization and the SVD (Singular Value Decomposition). We also extend our study to more general systems giving rise to linear least squares problems and show how the QR and SVD factorizations are used to solve overdetermined problems and can be applied to rank deficient problems.

Alla intresserade är välkomna!