

MATEMATISKA INSTITUTIONEN  
STOCKHOLMS UNIVERSITET  
Avd. Matematik

## SJÄLVSTÄNDIGT ARBETE I MATEMATIK

Tisdagen den 27 maj kl. 09.00–10.00 presenterar Marie Miller sitt arbete “The duality and efficiency in semidefinite programming” (15 högskolepoäng, grundnivå).

Handledare: Yishao Zhou

Plats: Sal 32, hus 5, Kräftriket

**Sammanfattning:** The purpose of this thesis is to explore the aspect of duality and efficiency in semidefinite programming. In particular, we discuss bad behaved systems in relation to the duality gap. In that sense, the impact of efficiency seems to be dependent of if there exists duality gap. There are several approaches to close up it, and we present two regularization algorithms. The first algorithm is based on abstract convex programming, and the second by semidefinite programming. The analysis part will end by some semidefinite programming problems.

Alla intresserade är välkomna!