

MATEMATISKA INSTITUTIONEN
STOCKHOLMS UNIVERSITET
Avd. Matematik

SJÄLVSTÄNDIGT ARBETE I MATEMATIK

Torsdagen den december kl. 09.15–10.15 presenterar Anu Kokkarinen sitt arbete “The S -Procedure and the Kalman-Yakubovich-Popov Lemma ” (30 högskolepoäng, Avancerad nivå).

Handledare: Yishao Zhou

Plats: Sal 31, hus 5, Kräftriket

Abstract: In this paper we study two classical control theory topics: the S -procedure and the Kalman-Yakubovich-Popov Lemma. Using Fenchel duality one can show that the S -procedure is lossless for a class of quadratic functions. We apply this result to derive a convex dual problem for certain non-convex optimization problems. Fenchel duality is also used to prove an extended version of the Kalman-Yakubovich-Popov lemma.

Alla intresserade är välkomna!