



Solvability of the H^∞ algebraic Riccati equation in Banach algebras

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(Submitted on 26 Jul 2011)

Let R be a commutative complex unital semisimple Banach algebra with the involution \cdot^* . Sufficient conditions are given for the existence of a stabilizing solution to the H^∞ Riccati equation when the matricial data has entries from R . Applications to spatially distributed systems are discussed.

Comments: 7 pages, 0 figures, submitted for publication in a journal

Subjects: **Optimization and Control (math.OC)**; Systems and Control (cs.SY); Analysis of PDEs (math.AP); Functional Analysis (math.FA); Rings and Algebras (math.RA)

MSC classes: Primary 46J05, Secondary 93D15, 58C15, 47N20

Cite as: **arXiv:1107.5187 [math.OC]**

(or **arXiv:1107.5187v1 [math.OC]** for this version)

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