Home Teaching Biography

Stephen

P. Boyd

Research

Books Papers Software Students

Classes

EE103 EE263 EE363 EE364a EE364b EE365

MOOC CVX101

Quadratic Stabilization and Control of Piecewise-Linear Systems

A. Hassibi and S. Boyd

Proceedings of American Control Conference, 6:3659-3664, June 1998.

<u>p_lin_acc.pdf</u>

We consider analysis and controller synthesis of piecewiselinear systems. The method is based on constructing quadratic and piecewise-quadratic Lyapunov functions that prove stability and performance for the system. It is shown that proving stability and performance, or designing (statefeedback) controllers, can be cast as convex optimization problems involving linear matrix inequalities that can be solved very efficiently. A couple of examples are included to demonstrate applications of the methods described.

Page generated 2015-10-13 13:18:00 PDT, by **jemdoc**.