

The Mathematics of Measurement Output Control

ALEXANDER B. KURZHANSKI*

*Lomonosov Moscow State University
e-mail: kurzans@mail.ru, kurzans@cs.msu.su

Abstract

This is an overview of investigation on the problem of output feedback control through available measurements under unknown but bounded disturbances subjected to *hard bounds* on the uncertain items and the controls. The solution scheme, while applicable to nonlinear systems, with greater specifics for the linear case, lies in the combination of *Hamiltonian techniques, set-valued analysis and minmax approaches*. The motivations come from typical problems of feedback control for complex systems.