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Optimal estimation relative to H^∞ -criteria for continuous and discrete system. (English. Russian original) [Zbl 0826.93024](#)

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The problem of H^∞ -optimal filtration is stated as the problem of optimal control for a dynamic system involving a differential or a difference equation for the error estimation. The optimality criterion involves the induced norm of the operator defining the mapping from the external perturbations to the error estimation. Satisfaction of the criterion amounts to find a saddle-point for a square integrable functional or its discrete analog.

Reviewer: [P.Loridan \(Rantigny\)](#)

MSC:

[93B36](#) H^∞ -control

[93C73](#) Perturbations in control/observation systems

Keywords:

H^∞ -optimal filtration; optimal control; saddle-point