

**Bobtsov, A. A.; Kremlev, A. S.**

**Observer synthesis in the compensation problem for a finite-dimensional quasi-harmonic disturbance.** (English. Russian original) [Zbl 1126.93426](#)

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Summary: The problem of synthesizing an observer for a finite dimensional quasi-harmonic disturbance is considered. The disturbance is not supposed to be measurable and is an external spurious action for a linear stable plant. The adaptive disturbance observer is constructed using the measurements of variables of the plant state, which provides asymptotic convergence of the estimate to the true value of the disturbance. The problem of synthesizing the observer is difficult due to the parametric uncertainty of its mathematical model and the fact that the disturbance is nonmeasurable.

**MSC:**

[93D21](#) Adaptive or robust stabilization  
[93B07](#) Observability

Cited in **9** Documents

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