Modification of a parabolic equation for modeling the control of adaptive optical systems

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Abstract:

A method of approximate stochastic equivalence is proposed that allows to reduce a parabolic equation describing the optical propagation in a turbulent atmosphere to a Kalman-Bucy equation. The resulting equation can be used to model control systems for adaptive optical systems based on Kalman filters.

Keywords: Parabolic Equation, Adaptive Optical Systems, approximate stochastic equivalence, Kalman-Bucy equation, Kalman filters

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Access full text (in Russian)

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