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Almost periodic solutions to one quasilinear systems with linear delay. (English. Russian original) [Zbl 0855.34086](#)

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A quasilinear system (with a delay depending linearly on time) of the form (1) $dx(t)/dt = Ax(t) + Bx(\mu t) + f(t) + \nu F(t, x(t), x(\mu t))$, $\mu = \text{const}$, $0 < \mu < 1$, $t \geq t_0 > 0$, $\nu > 0$, is considered, where A and B are constant $(m \times m)$ -matrices, $x(t)$ is an m -dimensional vector-function of the time t , $f(t)$ is an almost periodic m -dimensional vector-function, F is a nonlinear vector-function. A theorem on existence of a unique almost periodic asymptotically stable solution of the equation (1) is proved.

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MSC:

- [34K14](#) Almost and pseudo-almost periodic solutions to functional-differential equations Cited in 4 Documents
- [34C27](#) Almost and pseudo-almost periodic solutions to ordinary differential equations
- [34K25](#) Asymptotic theory of functional-differential equations

Keywords:

[unique almost periodic asymptotically stable solution](#)

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