Stepanov-like Almost Automorphic Solutions of Semilinear Evolution Equations with Deviated Argument.

We consider the existence and uniqueness of a Stepanov-like almost automorphic solution to the autonomous semilinear evolution equations with a deviated argument:

$$u'(t) = Au(t) + f(t, u(t), u[\alpha(t, u(t))]), \quad t \in \mathbb{R}$$

where $A$ is the infinitesimal generator of an exponentially stable $C_0$-semigroup $\{T(t)\}_{t \geq 0}$ and $f : \mathbb{R} \times X \times X \rightarrow X$ satisfies a Lipschitz-type condition with respect to second and third arguments. (Received September 18, 2007)