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Minh V Nguyen* (nguyen_minh2@columbusstate.edu), 4225 University Ave, Columbus, GA 31907. *A Katznelson-Tzafriri Type Theorem for almost periodic linear evolution equations.*

In this paper we present an extension of a theorem due to Katznelson and Tzafriri to non-autonomous linear differential equations with almost periodic coefficients of the form $x'(t) = A(t)x(t)$. To this end, we consider the evolution semigroup associated with the equation in a small invariant function space consisting of almost periodic functions with frequencies contained in the semi-module generated by the spectrum of $A(t)$. The obtained (Perron type) conditions are stated in terms of the solvability of inhomogeneous equations associated with the equation under investigation. (Received February 03, 2015)