Erratum: Asymptotic Behavior of Periodic Dynamical on Banach Spaces (*).

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There are errors in the proofs of Lemma 2.3 and Theorem 3.1. These are due to a mistake in Definition 2.7. The following revisions should be made:

1) After the words « $p \in \gamma^+(t_0, \varphi)$ » in Definition 2.7 insert « such that for each α there exists a sequence of integers $\{k_j\}$, increasing $k_j \to \infty$, so that $u(\sigma + k_j T, t_0, \varphi) \to U_\alpha(\sigma, t_0, p)$ uniformly for σ in compact subsets of R ».

2) With the revision given 1) the inclusion $\Gamma^+(t_0, \varphi) \subset L^+(t_0, \varphi)$ in the proof of Lemma 2.3 is now valid. This was not necessarily true as originally given.

3) The proof of Theorem 3.1 should now read as follows:

Since G is compact and V is periodic in t, $V(t, u(t, t_0, \varphi))$ is non-increasing and bounded from below for $t \geq t_0$. Hence, $\lim_{t\to\infty} V(t, u(t, t_0, \varphi)) = c$, a constant. Also, since G is compact, $\gamma^+(t_0, \varphi)$ is non-empty and by Lemma 2.2 $\Gamma^+(t_0, \varphi)$ is non-empty. Let $\bigcup_{\sigma\in R} U_\alpha(\sigma, t_0, p)$ be an arbitrary element of $\Gamma^+(t_0, \varphi)$ for some $p \in \gamma^+(t_0, \varphi)$, $\alpha \in \Lambda$. For each $\sigma \in R$ we have $u(\sigma + k_j T, t_0, \varphi) \to \to U_\alpha(\sigma, t_0, p)$ uniformly for σ in compact subsets of R for some increasing sequence of integers $\{k_j\}$, $k_j \to \infty$. So for each $\sigma \in R$ we have $V(\sigma, u(\sigma + k_j T, t_0, \varphi)) \to V(\sigma, U_\alpha(t, t_0, p))$ as $j \to \infty$ and by periodicity of V, $V(\sigma + k_j T, u(\sigma + + k_j T, t_0, p)) \to V(\sigma, U_\alpha(\sigma, t_0, p))$ as $j \to \infty$. Hence it follows that for all $\sigma \in R$, $V(\sigma, U_\alpha(\sigma, t_0, p)) = c$ and $\dot{V}(\sigma, U_\alpha(\sigma, t_0, p)) = 0$. By the definition of M and Definition 2.7 this implies $\Gamma^+(t_0, \varphi) \subset M$. By Lemma 2.3 we have $L^+(t_0, \varphi) \subset M$. Since $u(t, t_0, \varphi) \to L^+(t_0, \varphi)$ as $t \to \infty$ the theorem is proven.

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