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Abstracts of Short Communications and Posters

Section:

9. Ordinary Differential Equations and Dynamical Systems

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Tkachenko, Victor I., Institute of mathematics, Kiev, Ukraine

On linear almost periodic systems with bounded solutions

We consider a system of linear differential equations $dx/dt = A(t)x$ (1), where $x \in C^n$, matrix $A(t)$ is Bohr almost periodic (a. p.). We prove the existence of a system (1) which has nontrivial bounded (but not a. p.) solutions and is such that all the systems from some neighbourhood of it (in uniform on real axis topology of functions $A(t)$) have not nontrivial a. p. solutions. If the matrix $A(t)$ is skew-adjoint then in every neighbourhood of the system (1) there exists a system possessing all a. p. solutions.

Reference: 1. V. I. Tkachenko, On linear almost periodic systems with bounded solutions, *Bull. Austral. Math. Soc.* **55** (1997), 177–184.
2. V. I. Tkachenko, On linear homogeneous almost periodic systems satisfying the Favard condition, *Ukrain. Math. J.* **50** (1998), 409–413.