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Erratum to my paper: On the "Poincaré-Lyapunov"-like systems of three differential equations

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ERRATUM TO MY PAPER:
ON THE „POINCARÉ–LYAPUNOV"–LIKE SYSTEMS
OF THREE DIFFERENTIAL EQUATIONS

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In the paper [1] the following statement has been given
under some natural restrictions (smoothness, Θ-periodicity
in t, etc.) for system of the form

$$x' = f(x) + p(t,x,y,z)$$

$$y' = F(x) + G(y) + Cz + q(t) \qquad\qquad (1)$$

$$z' = h(x) + g(y) + cz + r(t,x,y,z),$$

where the functions $p,q,r,q'(t),F'(x),G'(x)$ are bounded
($|G'(x)| \leq 2\pi/\Theta$) with $q(t)$, $q'(t)$ having a zero mean value
over the period Θ.

    Theorem. System (1) admits a Θ-periodic solution, pro-
vided $C \neq 0$ and

  1) $\displaystyle\liminf_{|x| \to \infty} f(x)\, \text{sgn}\, x > P$ $(:= \sup_{t \in \langle 0,\Theta\rangle} |p(t,x(t),y(t),z(t))|)$

or lim sup $f(x)$sgn $x < -$ P,
$|x| \to \infty$

2) $\lim\limits_{|y| \to \infty} |cBy + cG(y) - Cg(y)| = \infty$,

3) $|c + G'(y)| \geq \delta > 0$ for all $y \in R^1$.

However, an evidently incorrect condition 2) should read

2) $\lim\limits_{|y| \to \infty} [cG(y) - Cg(y)]$sgn $y = \overset{+}{-} \infty$ for all $\mu \in (0,1)$.

Moreover, an information of several further papers dealing with similar "Poincaré-Lyapunov" - like systems has appeared to my knowledge since the time of submittig the paper [1] for the publication (see [2] - [6]).

Souhrn

OPRAVA K MÉMU ČLÁNKU: O SYSTÉMECH TŘÍ DIFERENCIÁLNÍCH ROVNIC "POINCARÉ - LJAPUNOVOVA" TYPU

Je opravena jedna ze tří postačujících podmínek existence Θ-periodického řešení systému (1). Přehled literatury z [1] o systémech daného typu je doplněn pěti dalšími tituly.

Р е з ю м е

ИСПРАВЛЕНИЕ К МОЕЙ СТАТЬИ:
О СИСТЕМАХ ТРЕХ ДИФФЕРЕНЦИАЛЬНЫХ УРАВНЕНИЙ ТИПА
"ПУАНКАРЕ - ЛЯПУНОВА"

Исправлено одно из трех достаточных условий существования

θ - периодического решения системы (1). Одновременно допол-
нен список литературы из [1] пяти работами, которые каса-
ются выше упомянутых систем.

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