

# Differential Dynamical Systems — Revised Edition (1st Printing)

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Errors are listed by page and line number. The symbol  $\implies$  means “replace with”. A negative line number means count from the bottom of the page. Each equation line is counted as one line and footnotes are not counted

The first printing (Jan 2017) of the revised edition has 10 9 8 7 6 5 4 3 2 1 on the copyright page.

Ch.	Page	Line	Change	Thanks
1				
2	47	6	$Tv \in E \implies Tv \in E_j$	NL
	48	-15	with nilpotency $k \implies$ with nilpotency $k > 1$	
	48	-14	<i>Add to eol:</i> The matrix $N = 0$ has nilpotency $k = 1$ .	
	49	-5	choice basis $\implies$ choice of a basis	
	65	14	The matrices $C$ and $D$ in Ex. 2.12(b) should be transposed. Thus	
			$\sum_{j=1}^{n_k} c_{ij}v_j \implies \sum_{j=1}^{n_k} v_j c_{ji}$	
	65	15	$\sum_{j=1}^{n_k} d_{ij}v_j \implies \sum_{j=1}^{n_k} v_j d_{ji}$	
3	71	2	$s_j \in \mathbb{R}^\times \implies s_j \in \mathbb{R}^n$	USF
	75	-8	$+ f_n(y) - f(y)  < \implies + f_n(y) - f^*(y)  <$	
	77	14	for all $n > N \implies$ for all $n \geq N$	
	79	18	$\delta + \frac{r_i}{2} + \implies \delta + \frac{r_i}{2}$	
	82	-10	For the first proof will $\implies$ For the first proof we will	
	91	-13	solutions $u : J \times B_{b/2}(x_o) \rightarrow B_b(x_o)$ . $\implies$ solutions $u : J \times B_{b/2}(x_o) \rightarrow B_b(x_o)$ of (3.27).	

Ch.	Page	Line	Change	Thanks
4	104	9	$\mathbb{S}^1 \rightarrow \mathbb{R}^n \implies \mathbb{S}^1 \rightarrow M$	
	105	17	$x_1 = u(s, x_o) \implies x_1 = u(s; x_o)$	
	117	-9	since $\alpha - K\varepsilon < 0 \implies$ since $\alpha - K\varepsilon > 0$	
	118	-3	a $\delta < \epsilon$ such that $L(x) \leq m \implies$ a $\delta < \epsilon$ such that $L(x) < m$	MS
	118	-1	beyond the $\implies$ to the	MS
	121	5	(see Exercise 4.23) $\implies$ (see Exercise 8)	
	127	15	is, there is a surjective map $\tau : A \times \mathbb{R} \rightarrow \mathbb{R}$ that is monotone $\implies$ is, for each $x \in A$ , the map $\tau(x, \cdot) : \mathbb{R} \rightarrow \mathbb{R}$ is surjective and monotone	USF
	128	3	correspondence, and if and only if the $\implies$ correspondence, and the	USF
	133	2	we begin with an ODE $\implies$ we begin by taking $x^* = 0$ and with an ODE	USF
	133	15	Suppose first that $H$ is a $\implies$ Suppose first that $h = H_1$ is a	USF
	136	5-6	extra line feed after “does not”	
	137	12	Theorem 4.6 $\implies$ Theorem 4.19	
141	9	$(-1, 0) \implies (1, 0)$		
154	-9	$\rightarrow \mathbb{S} \times R \implies \rightarrow \mathbb{S} \times \mathbb{R}$	USF	
5	183	-3	sink at $(-\lambda, \lambda)$ . $\implies$ sink at $(-\lambda, -\lambda)$ .	
6	221	2	in (6.42): $= \cos(\theta) \implies = \sin(\theta)$	GD
	221	6	$\cos^m(\theta) \implies \cot^m(\theta)$	GD
	225	-4	$(\pm 1/\sqrt{3}, \pm 2/\sqrt{3}) \implies (\pm 1/\sqrt{3}, \pm \sqrt{2/3})$	GD
8	270	-8	the map $\nu = p(\mu) = m(\mu)c(\mu) \implies$ the map $\nu = p(\mu) = \frac{1}{2}m(\mu)c(\mu)$	
	288	12	“and stable if $Re(\lambda) > 0$ and” $\implies$ and, in the two-dimensional center subspace, is stable if $Re(\lambda) > 0$ and	
	289	Fig 8.12	Caption should say “top” and “bottom” instead of left and right	USF
	304	5	$\gamma_o \subset \implies \eta_o \subset$	
	304	7	$z \in \gamma_o \implies z \in \eta_o$	
	304	13	For any $q \in \Gamma_o \implies$ For any $q \in \eta_o$	
	305	11	$= \varphi_t(q, \theta) + \varepsilon \implies = \varphi_t(q) + \varepsilon$	
	306	14 (8.87)	$\frac{d}{d\varepsilon} (f(\psi_t(s_\varepsilon(\theta)), \theta)) \implies \frac{d}{d\varepsilon} (f(\psi_t(s_\varepsilon(\theta))))$	
	314	17	“ways of putting $n$ identical balls into $m$ boxes” $\implies$ ways of choosing $n$ objects from a set of $m$ objects.	
315	8	“Verify that this system has the form (8.40) and satisfies” $\implies$ “Verify that when $\lambda = 0$ , this system can be transformed to the form (8.40). Then show it satisfies”		
9	330	22	We will show that action $\implies$ We will show that the action	USF
Bibl.	386	2	Acta Math: 1-270 $\implies$ Acta Math 13(1-2): 1-270	