Corrections to
“Bifurcation from a saddle connection in functional differential equations:
An approach with inclination lemmas”
(Dissertationes Math. 291 (1990))

by HANS-OTTO WALther (München)

Page 21, line 16: Delete “and is continuous”.
Include “Each map \(X(t, \cdot, a) : C \to C\) is of class \(C^1\).”

Page 31, line 10: Add a line:
“(vi) The maps \(DG, DG^-, D_1G, D_1G^-\) are bounded.”

Page 32, lines 14 and 15: Delete “and are continuous”.
Add “Each map \(Y(t, \cdot, a), R(t, \cdot, a)\) is of class \(C^1\).”

Page 32, lines 24–26: Delete “The assignments \ldots\) into \(L_c(C, C)\).”

Page 33, lines 10–14: Replace these lines by the following text.

“Proposition 5.1 There exists a constant \(\text{const} \geq 0\) such that we have

\[
|D^2R_{pa}(t, \psi)| + |D^2R_{qa}(t, \psi)| < \text{const} \\
\text{for all } (t, \psi, a) \in [0, N] \times D^1 \times A_7. 
\]

Proof. Let \((t, \psi, a) \in [0, N] \times D^1 \times A_7\) be given. We have

\[
|D^2R(t, \psi, a)| \leq |D^2Y(t, \psi, a)| + |T(t, \cdot, a)|
\]

and

\[
|D^2Y(t, \psi, a)| \leq \sup |D_1G||D^2X(t, G^-(\psi, a), a)| \sup |D^1G^-| \\
\leq \sup |D_1G| \sup |D^1G^-|(1 + \max |h'|)^N+1,
\]

by Proposition 5.1(vi) and Corollary 3.1. There is a constant \(k_{00} \geq 1\) such that

\[
|T(t, \cdot, a)| \leq k_{00} e^{-\lambda t} \text{ for all } t \geq 0, a \in A_7 \subset A_3.
\]

Now the desired estimate becomes obvious. □
From Proposition 5.3(i) we infer that there exist an open ball $D^{2,1} \subset D^1$, centered at $0 \in C$, and an open interval $A_8$ (with $\text{cl} A_8 \subset A_7$) such that we have

(5.7) \ldots

Page 34, lines 25 and 27: Replace "c" by "const".
Page 34, line 28: Replace "$(1 + c + k_0)e^{-\lambda_1 N}$" by "$(1 + \text{const} + k_0)e^{-\lambda_1 N}$".
Page 35, lines 10 and 11: Write

\[ |p_a \circ Y_a(3, \psi)| \leq (\text{const} + 1)e^{3\mu_2} |p_a \psi| \]

Page 35, line 21: Write

\[ c_4 := \frac{c_3}{(\text{const} + 1)e^{3\mu_2}}. \]

Page 36, lines 25 and 26: Replace "c" by "const".