



HAL
open science

Addendum-Erratum to Nonsmooth Modeling and Simulation for Switched Circuits

Bernard Brogliato

► **To cite this version:**

Bernard Brogliato. Addendum-Erratum to Nonsmooth Modeling and Simulation for Switched Circuits. 2016. hal-01311078v1

HAL Id: hal-01311078

<https://inria.hal.science/hal-01311078v1>

Preprint submitted on 3 May 2016 (v1), last revised 3 Feb 2022 (v2)

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Addendum-Erratum to *Nonsmooth Modeling and Simulation for Switched Circuits*, Springer Verlag, LNEE 69, 2011

(the first figure indicates the page number)

- 5, in (1.3), second line: $0 \leq v(t) \perp w(t) = -\frac{u(t)}{R} - \dots$
- 6, line 5: $0 \leq v(t) \perp -\frac{u(t)}{R} - \dots$
- 6, line 8: $\max \left[0, \frac{u(t)}{R} + \frac{1}{RC}z(t) \right]$
- 6, in (1.4): $\max \left[0, \frac{u(t)}{R} + \frac{1}{RC}z(t) \right]$
- 6, in (1.5), second line: $0 \leq v_{k+1} \perp w_{k+1} = -\frac{u_{k+1}}{R} \dots$
- 7, in (1.6): $w_{k+1} = \left(1 + \frac{h}{RC} \right)^{-1} \left[-h\frac{u_{k+1}}{R} + z_k + \frac{1}{R} \right] v_{k+1} \geq 0$
- 12, in (1.16), first line: $\dots + \frac{v(t)}{L}$
- 13, in (1.17): first line: $\dots + \frac{h}{L}v_{k+1}$
- 13, in (1.18): $0 \leq \frac{L}{L+hR}x_k - i_{k+1} + \frac{h}{L+Rh}v_{k+1} \perp \dots$
- 13, paragraph above (1.19): ...then $\frac{L}{L+Rh}x_k - i_{k+1}$ is negative...
- 13, paragraph above (1.19): $v_{k+1} = -\frac{L}{h}x_k + \frac{L+Rh}{h}i_{k+1} > 0$
- 15, third line: $\dots + \frac{h}{L}v_{k+1}$ does...
- 15, in (1.28), first line: $\dots + \frac{\sigma_{k+1}}{L}$
- 15, in (1.29): $0 \leq \left(1 + h\frac{R}{L} \right)^{-1} x_k - i_{k+1} + \frac{1}{L+Rh}\sigma_{k+1} \perp \dots$
- 54, matrices above Lemma 2.44: The determinants of the symmetric parts of the first and the third matrices are negative...
- 55, in Proposition 2.45 M has entries a_{ij}
- 57, in (2.25): missing equivalence between the last two expressions.
- 70, line after (2.61): $K = \{z \in \mathbb{R}^n | Cz + Fu(t^+) \in Q_D^*\}$
- 72, transition matrix in (2.65): $\begin{pmatrix} \frac{-2}{RC} & \frac{1}{RC} & 0 \\ \frac{1}{RC} & \frac{-2}{RC} & \frac{1}{R} \\ 0 & 0 & 0 \end{pmatrix}$