

Errata Corrige for the Paper

“Piecewise-linear Lyapunov Functions for Structural Stability of Biochemical Networks”, *Automatica*, 50 (10), pp. 2482–2493, 2014

Franco Blanchini and Giulia Giordano

- **Definition 2.2** (page 2484) should read as follows.

System (1) is

(i) **structurally stable** if any equilibrium point \bar{x} of the system with $\varepsilon = 0$ is Lyapunov stable: there exists a continuous, strictly increasing and unbounded function $\omega : \mathbb{R}_+ \rightarrow \mathbb{R}_+$, with $\omega(0) = 0$, such that $\|x(t) - \bar{x}\| \leq \omega(\|x(0) - \bar{x}\|)$;

(ii) **structurally convergent** if it is structurally stable and, for any $\varepsilon > 0$ and $g_0 \geq 0$, the perturbed system (3) has globally bounded solutions and admits an equilibrium which is globally asymptotically stable in \mathbb{R}_+^n .

- **Theorem 2.1** (page 2485) should read as follows.

Consider the linear differential inclusion

$$\dot{x}(t) = \left[-\varepsilon I + \sum_{i=1}^q b_i d_i(t) c_i^\top \right] x(t), \quad x(0) = x_0 \quad (7)$$

where $d_i(t)$ are arbitrary nonnegative scalar piecewise continuous functions. Then:

1. stability of (7) for $\varepsilon = 0$ implies structural stability of any equilibrium of (1);
2. asymptotic stability of (7) for $\varepsilon > 0$ implies structural convergence of (1).