A LETTERS JOURNAL EXPLORING THE FRONTIERS OF PHYSICS

ERRATUM

Dynamics of order parameters for globally coupled oscillators

To cite this article: S. De Monte and F. d'Ovidio 2002 *EPL* **59** 477

EUROPHYSICS LETTERS 1 August 2002

Europhys. Lett., **59** (3), pp. 477–478 (2002)

Erratum

Dynamics of order parameters for globally coupled oscillators

S. De Monte[1,2] and F. d'Ovidio[1]

[1] *Department of Physics, Bld. 309, Technical University of Denmark DK-2800 Lyngby, Denmark*

[2] *Institute for Mathematics, University of Vienna Strudlhofgasse 4, A-1090 Vienna, Austria*

(*Europhys. Lett.*, **58** (1), pp. 21–27 (2002))

PACS. 05.45.-a – Nonlinear dynamics and nonlinear dynamical systems.

Due to a technical problem in printing, part of the symbols in figs. 1 and 3 completely disappeared. We publish here under the complete figures sincerely apologizing to the authors for the unpleasant inconvenience.

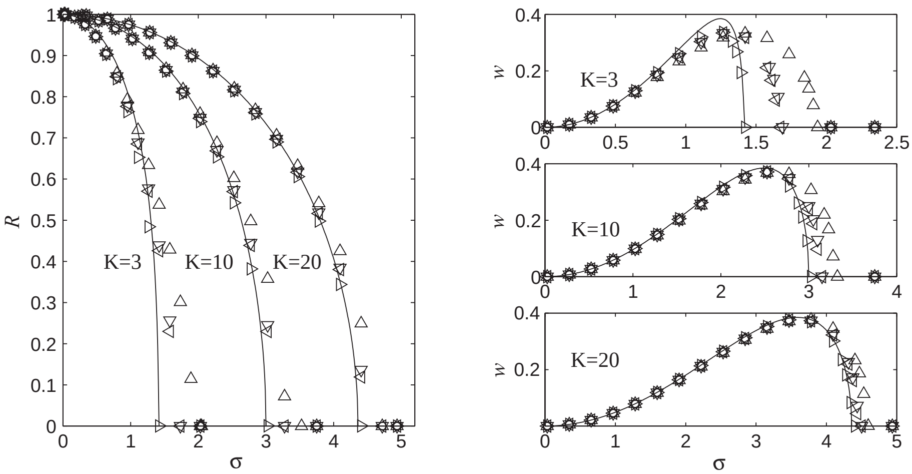

Fig. 1 – The estimated values for the amplitude of the oscillations of the centroid Z and of the second-order parameter W (eq. (7)) *vs.* the standard deviation σ (solid lines) are compared to those numerically computed according to eq. (1). Populations with different size and frequency distribution are considered: $N = 800$, Gaussian distribution ($\triangle$); $N = 800$ uniform distribution ($\bigtriangledown$); $N = 5$, uniform distribution ($\triangleleft$); $N = 2$ ($\triangleright$).

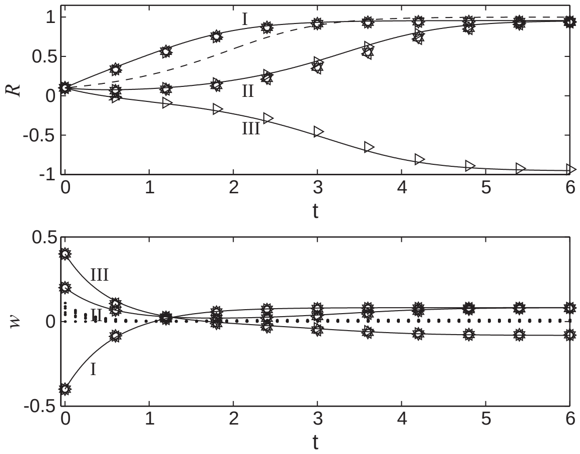

Fig. 3 – The transient behaviour predicted by eq. (5) (solid line) is compared to that of the full system eq. (1) (triangles) and of its zeroth-order approximation eq. (3) (dashed line) for $\sigma = 0.5$ and $K = 3$. The initial states have the same centroid's position $|Z|$, but different $|W|$ (symbols as in fig. 1). The validity of the closure assumption can be checked also numerically by noticing that the term $|\langle(\omega - \omega_0)^2\epsilon\rangle|$ (dotted line) remains significantly smaller than $|W|$ along the whole trajectory.