

## Erratum: Aging and clustering in globally coupled oscillators [Phys. Rev. E 75, 056206 (2007)]

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In the paragraph involving Eq. (A15) of our paper (p. 15), the expression of one eigenvalue and the equation of others, (A15), for the Jacobi matrix of Eqs. (A10)–(A12) are not correct. Actually, all eigenvalues of the matrix need to be obtained numerically. This error is only relevant to the following two points.

(1) The instability of the generalized incoherent state (GIS) claimed there remains to be rejustified. However, we have numerically confirmed that the GIS is indeed unstable on  $1000 \times 1000$  gridpoints spanning the region  $0 < K < 1$ ,  $0 < p < 1$  where the GIS exists, for all sets of parameter values chosen, i.e. for  $c_2 = -3, -5, -8, -20$  with  $a = b = 1$ . This result suggests that the claim is valid at least fairly generally.

(2) The theoretical curves in Fig. 10(b), which are based on the eigenvalue of the Jacobi matrix with the largest real part, needs to be redrawn using the correct one. This is done in the Fig. 1 below, where the old, incorrect curves are also displayed for comparison. As is seen, the differences are minor. Hence, the conclusions derived from Fig. 10(b) in the paper survive. Although the figure below is for  $c_2 = -3$ , the situation was the same for  $c_2 = -5$ .

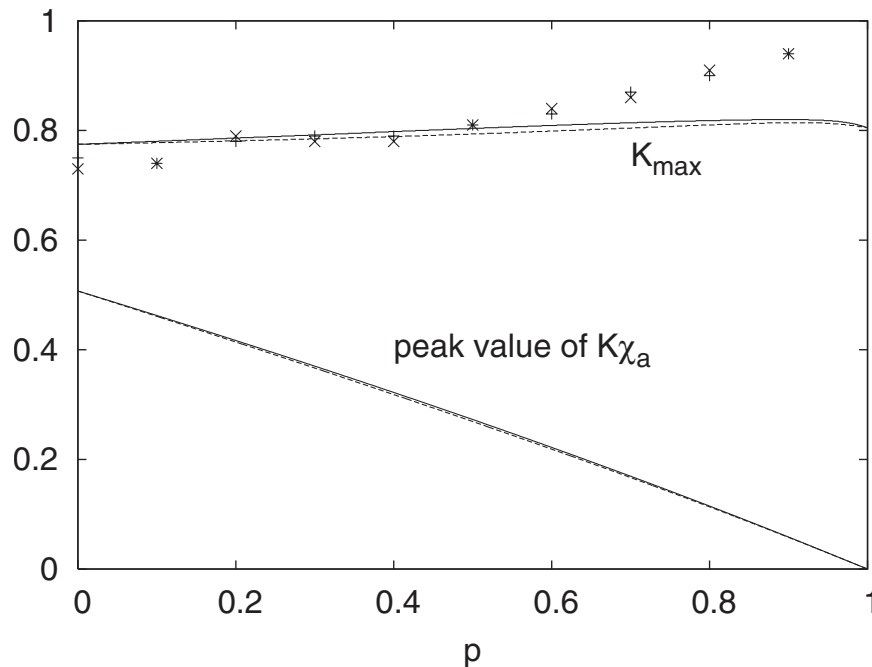


FIG. 1.  $p$  dependence of  $K_{max}$  defined as the maximum point of  $\sigma_a$  for  $p$  fixed ( $a=b=1$ ,  $c_2=-3$ ). The upper curves are due to theory, while the symbols show simulation results for two runs with  $N=4000$ . The lower curves show the peak value of  $K\chi_a$  for each fixed value of  $p$ . For each pair of the theoretical curves, the solid (broken) one is based on a corrected (erroneous) eigenvalue of the Jacobi matrix of Eqs. (A10)–(A12).