J Nonlinear Sci (2008) 18: 219–220
DOI 10.1007/s00332-008-9017-y

Journal of Nonlinear Science

ERRATUM

The Spectrum of the Partially Locked State for the Kuramoto Model

R. Mirollo · S.H. Strogatz

Published online: 24 January 2008

Erratum to: J Nonlinear Sci DOI 10.1007/s00332-006-0806-x

Errors in Fig. 2 were introduced during typesetting of this article. The figure is reprinted here as it should have appeared in the original online version. The publisher regrets the error.

The online version of the original article can be found under doi:10.1007/s00332-006-0806-x.

R. Mirollo
Mathematics Department, Boston College, Chestnut Hill, MA 02467, USA

S.H. Strogatz (✉)
Center for Applied Mathematics and Department of Theoretical and Applied Mechanics, Cornell University, 212 Kimball Hall, Ithaca, NY 14853-1503, USA
e-mail: shs7@cornell.edu

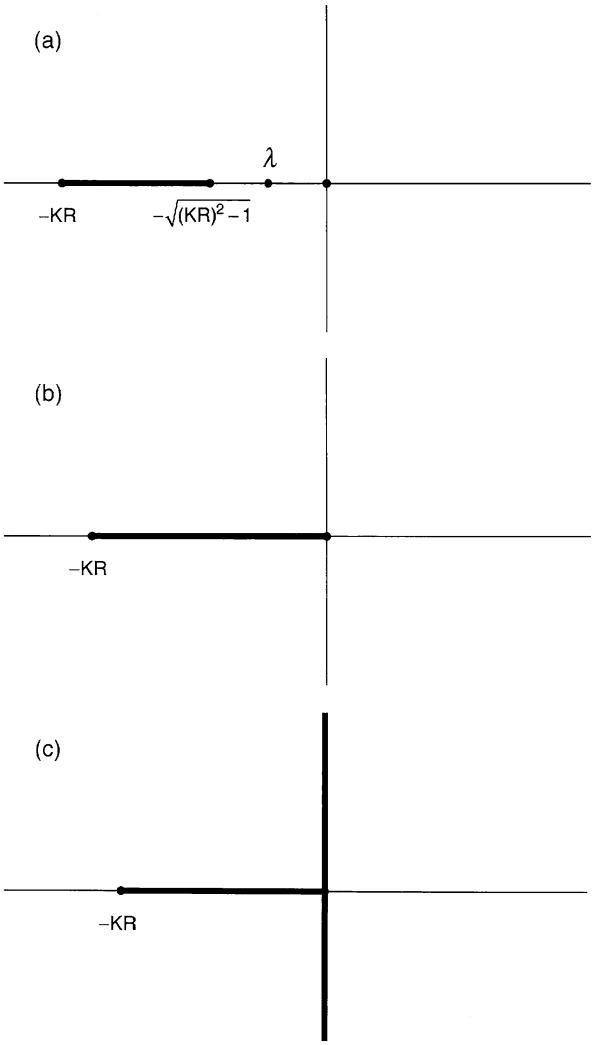

Fig. 2 The spectrum $\sigma(L)$ for the special positive fixed states. **a** For fully locked states with $K > K_l$, λ and 0 are eigenvalues. The rest of $\sigma(L)$ is continuous. The zero eigenvalue follows from the rotational symmetry of the Kuramoto model. In contrast, the eigenvalue λ is not present in all cases; it exists if and only if $h_c(-\sqrt{(KR)^2-1}) \geq K^{-1}$, as shown in the proof of Proposition 4. **b** For fully locked states at the bifurcation value $K = K_l$, the spectrum contains an eigenvalue at 0, and the rest of $\sigma(L)$ is continuous. **c** For partially locked states with $K < K_l$, there is still an eigenvalue at 0. The rest of the spectrum is continuous, as before, but now it includes the whole imaginary axis. Hence the partially locked states are linearly neutrally stable