

Erratum: Analytical results for coupled-map lattices with long-range interactions
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The negativity of the largest transversal Lyapunov exponent $\tilde{\lambda}_2^*$ implies $\varepsilon_c < \varepsilon < \varepsilon'_c$, where ε_c is given by Eq. (9) and

$$\varepsilon'_c = (1 + e^{-\lambda_U}) \left(1 - \frac{2}{\eta(\alpha)} \sum_{m=1}^{N'} \frac{\cos(\pi m(N-1)/N)}{m^\alpha} \right)^{-1},$$

instead of the condition $\varepsilon_c < \varepsilon$ considered in the paper. The curves in Fig. 2 of the paper represent only the critical lines defining the lower boundary of the synchronization domain. Therefore, Fig. 2 should be replaced by the present one in order to display the synchronization domains properly. Also as a consequence, the first sentence after Eq. (12), asserting that synchronization can be achieved for any α in a finite system, is incorrect, since a threshold value may occur for a large enough system size. Moreover, in the thermodynamic limit, $\alpha_c = d$ represents only an upper bound to the critical value of α above which synchronization cannot occur. All other statements remain essentially true. Still, there is a minor misprint: wherever it says $\mathcal{T}_n \mathcal{T}_n^T$ it should be $\mathcal{T}_n^T \mathcal{T}_n$.

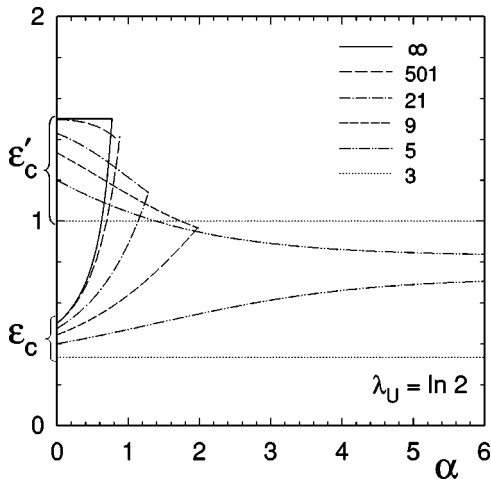


FIG. 2. Critical coupling strengths for synchronization vs range parameter, for different values of N indicated in the figure. The critical lines were analytically obtained for a 1D lattice with power-law couplings and $\lambda_U = \ln 2$. Synchronization occurs for $\varepsilon_c < \varepsilon < \varepsilon'_c$.