Erratum: Spatiotemporal bounded noises and transitions induced by them in solutions of the real Ginzburg-Landau model [Phys. Rev. E 86, 021118 (2012)]

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In the original paper, we introduced two spatiotemporal colored bounded noises, one of which was based on the zero-dimensional Cai-Lin noise [1] described by the following stochastic differential equation (SDE):

$$\xi'(t) = -\frac{1}{\tau_c}\xi(t) + \sqrt{\frac{1}{\tau_c(1+\delta)}}\sqrt{B^2-\xi^2}\eta(t), \tag{1}$$

$\eta(t)$ is a white noise. Namely, the spatiotemporal extension reads

$$\partial_t\xi(x,t) = \frac{2\lambda^2}{\tau_c}\nabla^2\xi(x,t) - \frac{1}{\tau_c}\xi(x,t) + \sqrt{\frac{2D}{\tau_c(1+\delta)}}\sqrt{B^2-\xi^2}\eta(x,t). \tag{2}$$

Recently, we discovered that Doering had previously defined, in a 1987 paper [2] (see also Ref. [3]), both Cai-Lin equation Eq. (1) and our Eq. (2). Luckily, no other overlap exists between our paper and the paper [2] which investigated very interesting analytical properties of the model (2) in the one-dimensional case. On the contrary, in the original paper we numerically studied the properties of the two spatiotemporal noises in a two-dimensional (2D) lattice approximation as well as their impact on the solutions of the Ginzburg-Landau model, again in 2D. It is a pleasure to recognize the priority of Doering in proposing model 2. Finally, in the Appendix of the original paper, in a section on a method to generate bounded noises with a preassigned stationary density from a scalar stochastic differential equation with additive noise, we mentioned *en passant* that, if the preassigned stationary density is $P(x) = (1/2)\cos(x)_+$, then the drift of the generating SDE is proportional to $-\tan(x)$. This process (which had no role in our paper, apart from being an example of a general method we proposed) has been defined and investigated in Ref. [4], which we did not know when we wrote our paper.

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