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Title:	Coupling reduces noise: Applying dynamical coupling to reduce local white additive noise
Authors:	Sinha, Sudeshna (/jspui/browse?type=author&value=Sinha%2C+Sudeshna)
Keywords:	dynamical coupling white additive noise nonlinear dynamical
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Publisher:	World Scientific Publishing Co. Pte Ltd
Citation:	International Journal of Bifurcation and Chaos, 25 (3)
Abstract:	We demonstrate how coupling nonlinear dynamical systems can reduce the effects of noise. For simplicity we investigate noisy coupled map lattices and assume noise is white and additive. Noise from different lattice nodes can diffuse across the lattice and lower the noise level of individual nodes. We develop a theoretical model that explains this observed noise evolution and show how the coupled dynamics can naturally function as an averaging filter. Our numerical simulations are in excellent agreement with the model predictions.
Description:	Only IISERM authors are available in the record.
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