Complex Dynamics Group Seminar

Ocean Surface Temperature: Unpredictability

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Abstract

The weather dynamics has been previously analyzed in the framework of chaos theory and concerns only dynamics of air but not parameters of ocean.
Based on the research in papers [1, 2, 3, 4] we provide theoretical and numerical arguments for see surface temperature (SST) unpredictability as a global phenomenon.

References

[1] M. Akhmet, M. O. Fen, Replication of Chaos in Neural Networks, Economics and Physics, Springer/HEP, Berlin, Heidelberg. 2016.
[2] M. Akhmet, M. O. Fen, Unpredictable points and chaos, CNSNS. 40 1–5, 2016.
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[4] G. K. Vallis, Conceptual models of El Nino and the Southern Oscillation, J. Geophys. 93 13979–13991, 1988.
[5] E. Tziperman, L. Stone, M. A. Cane and H. Jarosh, El Nino chaos: Overlapping of resonance between the seasonal cycle and the Pacific ocean-atmosphere oscillator, Science. 264 72–74, 1994.
[6] S. E. Zebiak and M. A. Cane, A model El Nino-Southern Oscillation, Mon. Wea. Rev. 115 2262–2278, 1987.
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Date: Tuesday, April 11, 2017
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