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An Integrated and Evolutionary Dynamical Systems View of Climate Complexity

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ABSTRACT

The Earth shows a constant display of an organized complexity system, and its intrinsic capacity for sporadic self-organization constitutes its fundamental and profound mysterious property. A graphical method derived from the logistic phase space of precipitation is proposed to identify periods of abundance-scarcity of rain as well as El Nino presence in order to cope with climate change. The most striking result is that the majority of El Nino events on this graph are chaotic, in which the sign of the dominant eigenvalues of precipitation gives trends of scarcity on negative signs and abundance on positive signs, with eleven years periods.

KEYWORDS

Climate Change; Complexity System; Earth

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