

Abstract: We view the coupled atmosphere-ocean-earth system as a dynamical system possessing an attractor. Climate changes produced by new external conditions correspond to the emergence of new attractors. Internally caused climate changes correspond to long-term shifts from one part of an attractor to another. Changes of the latter type may accompany those of the former and render them more difficult to detect. New attractors appear to be inherently determinable, if the new external conditions are properly anticipated. Theoretical findings favoring the predictability of shifts within an attractor are more elusive. We illustrate the possible events with a simple numerical model