Geophysical Research Abstracts, Vol. 8, 01788, 2006 SRef-ID: 1607-7962/gra/EGU06-A-01788 © European Geosciences Union 2006



A revisit of some basic issues of the ENSO dynamics

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El Niño-Southern Oscillation (ENSO) phenomenon is to a large extent understood as an irregular coupled oscillator of tropical Pacific ocean-atmospheric system. However a number of fundamental issues remain to be better understood. For instance, what controls periodicities of ENSO? Does ENSO comprise a number of coupled modes and if so how many leading modes are possibly involved? Can we translate the result from eigen-analysis of simple coupled ENSO models to some quantitative measures for the coupled instability of the ENSO oscillators in various complex coupled models and in the real world? Some recent results will be present in an attempt to address some of these issues.