

A Panoply of Flux Intervention Experiment to Understand Tropical Ocean Basin Interactions

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This talk describes a panoply of coupled model air-sea flux intervention approaches and how they have been used to understand mechanisms of ocean basin interactions. The various approaches include the so-called pace-maker approach where SST is specified (typically from observations) in one basin and air-sea coupling is retained elsewhere. Results from the flux over-ride approach are described where, for example, turbulent momentum or heat fluxes are specified in a particular area used to understand basin teleconnections in other regions. Finally, the novel interactive ensemble coupling strategy is described and how it has been applied to understand basin interactions. Some key science results and open questions from each of these approaches will be highlighted.