

Sensitivity of the Indo-Pacific Climate Variability to Different Forcing in XXth Century Simulations

Annalisa CHERCHI

National Institute of Geophysics and Volcanology, 40128 Bologna, Italy

([cherchi at bo.ingv.it](mailto:cherchi@bo.ingv.it))

Antonio NAVARRA

The climate variability of the Indo-Pacific region is dominated by two important large-scale phenomena: the Asian summer monsoon (ASM) and the El Niño Southern Oscillation (ENSO). They are known to be strictly linked, even if the mechanisms involved in the connection are not completely understood. Coupled models simulations, with or without SST prescribed in the Tropical Pacific Ocean, have been performed and analyzed to give some more understanding on that issue.

Furthermore, the contribution of interannual varying GHGs and of SST forcing is analyzed in a set of experiments of the XXth century. Statistical analysis of the experiments available within our group (e.g. with or without GHGs) enable to study the real impact of that forcing in the climate variability, with a focus on the Indo-Pacific region. The impact of prescribed SST and of an interactive ocean coupled to the atmosphere has been considered as well.