Analysis of ENSO related multi source SST for the east pacific Nino 1.2 region

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The east pacific region of Nino 1.2 and its bordering countries are mainly affected by the coupled ocean-atmosphere-system El Nino Southern Oscillation (ENSO). Besides the influence of large scale circulation, our study considers the impact of local Sea surface temperature (SST) to the atmospheric conditions and mechanism, as an important part of the climate- and ecosystem, within this region. As part of the German Research Foundation (DFG) research unit 816 in South Ecuador, climate conditions were measured at different locations. Several parameters of these data, like precipitation amount and distribution, show a distinct sensitivity associated with the occurring of different phases of ENSO (El Nino, La Nina). However, this sensitivity show strong spatial and temporal variations particularly caused by local SST distribution. One main objective is to examine local processes, directly forced by SST, like convection and formation of precipitation, using the regional climate model WRF. In doing so, we will analyze the course of various ENSO events with regards to the change in ENSO character. This work requires reasonable boundary conditions for atmosphere and especially for ocean SST. For this purpose, we have to select suitable SST data sets out of the huge number of available SST products. For our further investigations it is necessary to know the differences and common features of the available products for SST distribution. In this Poster we show the first results of our SST analysis including (i) the comparisons of spatial and temporal SST patterns, (ii) the examination of the impact of model grid interpolation and additionally (iii) an investigation for occurrence of thresholds values, associated with convective activity, within the selected SST products.