



Contribution ID: 32

Type: **not specified**

## The complexity of ENSO and its impacts: lessons learnt from initialized predictions

*Monday, 2 September 2019 16:50 (50 minutes)*

Over the past decade, substantial efforts have been devoted to elucidate how a changing climate will impact ENSO. At the same time, there have been continuous advances in ENSO monitoring and predictive capabilities. In this talk, we bring together both lines of work by discussing the performance of initialized ENSO predictions. Improved reanalyses data sets, real-time seasonal forecasts, and the hand of nature providing additional case studies, have contributed to the realization of ENSO as a varied and complex phenomenon. The variety of ENSO flavours results from different balances among a handful of thermodynamical processes operating at a multiplicity of time scales. ENSO is a clear example of spatial and temporal scale interaction, being influenced by tropical weather as well as by slow decadal variability modes and trends. This scale interaction poses considerable challenges for ENSO forecasting systems, as it will be illustrated during this lecture.

**Primary author:** ALONSO BALMASEDA, Magdalena (ECMWF)

**Presenter:** ALONSO BALMASEDA, Magdalena (ECMWF)

**Session Classification:** Session 2: Physical processes, modelling and initialization requirements