



# **1 Comparative analysis of ENSO indexes over the last half millennia**

R. Abarca del Río (1,2)

(1) Departamento de Geofísica (2) PATSURO (sst.oceanografia.udec.cl), COPAS

Universidad de Concepción, casilla 160-C, Concepción, Chile

([roabarca@udec.cl](mailto:roabarca@udec.cl)) / Fax: 56-41-220104 / Phone: 56-41-203107)

We investigated through different spectral and time frequency methods the interannual to secular time scales cycles present in all indices available of ENSO variability over the last half millennia.

Although a general description can be drawn on the secular increase of frequencies in the ENSO events, the available indices show an incoherent picture in the oscillations present from interdecadal to secular time scales, whereas roughly over the last two centuries a general agreement is found from interannual to decadal time scales.

On the interannual time scales, at least during the last 150 years, the extent of lower frequencies appears to have been decreasing according with patterns of about 30-40 years (1880/85-1925/30-1960/65- ...).

On the decadal time scales, over the last century a period of about 14-15 years has been present over much of the century, with different patterns of amplitudes depending on the index analysed.

However both interannual and decadal time scale patterns depend too on the sign of the ENSO events; El Niño or La Niña.