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The role of tropical-extratropical teleconnections in the seasonal march of the southern Spring circulation.

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The southern-Hemisphere Spring season is characterised by a shift of the global tropical circulation from the northern-Hemisphere monsoon systems to the seasonal southern-Hemisphere ITCZ, and the concomitant intensification of inter-annual variability associated with the ENSO and its teleconnections. While large body of work has been devoted to a better understanding of the evolution of interannual anomalies, and of the underlying progression of the seasonal circulation near the Equator, a truly global picture of the climatological transition between the two summer-hemisphere circulation regimes has only recently started to emerge. Taking inspiration from a study of the meteorology of the South-East Pacific during Spring 2008, in this paper we discuss the mechanisms involved in the seasonal march of the southern-Hemisphere circulation during southern Spring. We highlight the scale relationships involved, the important role played by changing teleconnection in shaping this evolution, and their alteration or disruption associated with the growth of ENSO anomalies.