TECNICAS DE PRONOSTICOS

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CONTENIDO

VI. ANALISIS DE COMPUESTO

COMPOSITE ANALISIS (ANÁLISIS DE COMPUESTOS)

Los análisis compuestos, en particular, se reconocen como una herramienta simple y eficaz para identificar las condiciones observadas durante estados específicos del clima. Pueden señalar conexiones entre un fenómeno y regiones circundantes clave, y proporcionar información valiosa para que se formen hipótesis sobre los mecanismos físicos que pueden estar involucrados en estas conexiones.

Boschat, 2016

https://www.nature.com/articles/srep29599.pdf

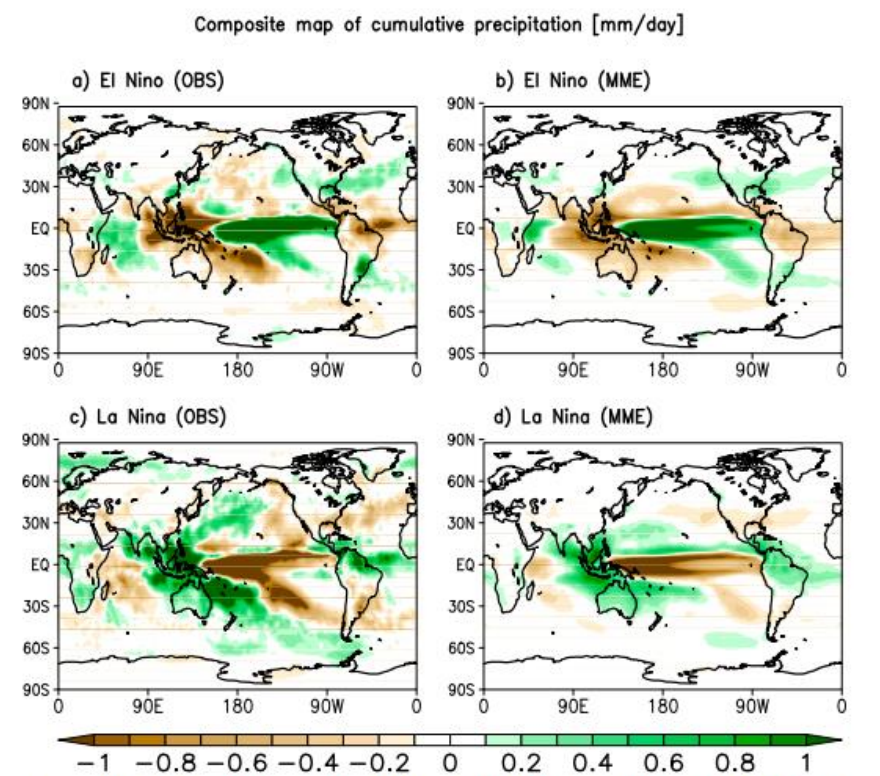

FIG. 4. Composite maps of mean precipitation anomaly for July(0)–June(1) during (a),(b) El Niño and (c),(d) La Niña years from the (left) observations and (right) MME.

Kim, Jin-Soo & Kug, J.-S & Yoon, Jin-Ho & Jeong, Su-Jong. (2016). Increased atmospheric CO2 growth rate during El Niño driven by reduced terrestrial productivity in the CMIP5 ESMs. Journal of Climate. 29. 10.1175/JCLI-D-14-00672.1.

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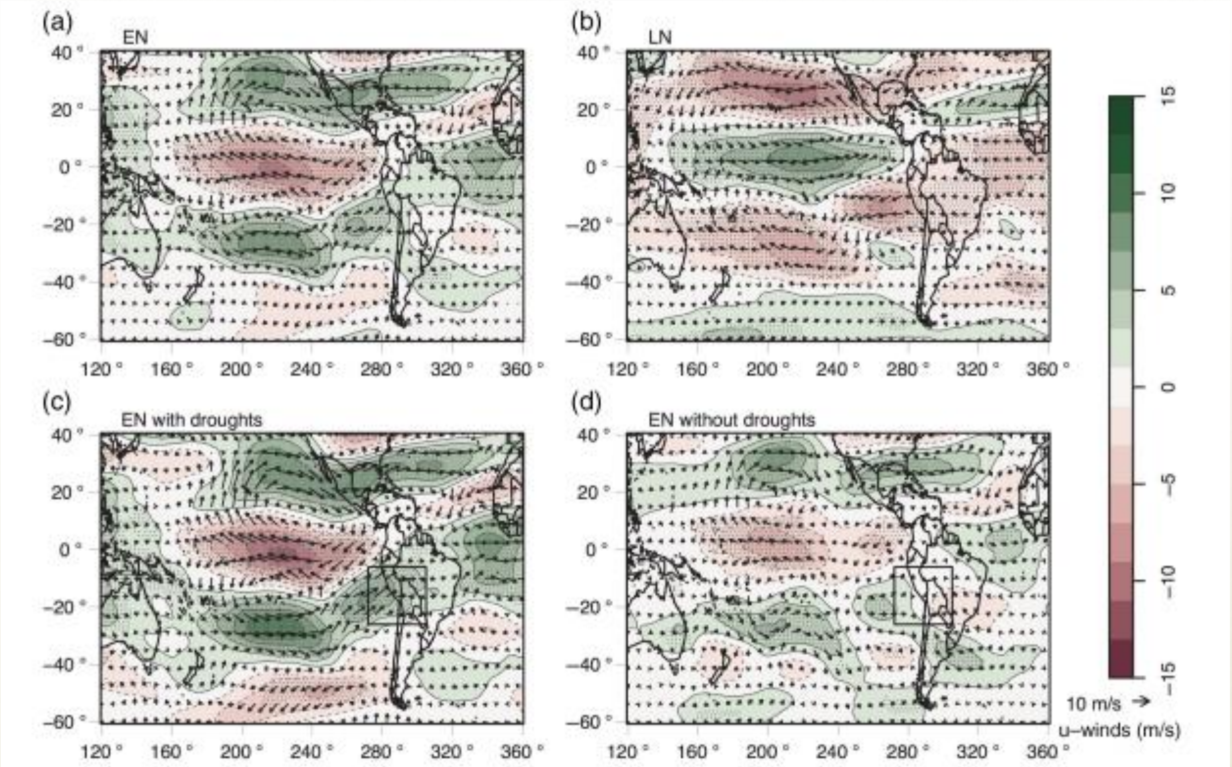

FIGURE 4 JRA-55 composites of 200-hPa winds and GPH based on observed SPI for JFM 1964–2016 with respect to neutral ENSO conditions. Wind anomalies are shown in the top two rows (zonal component coloured) and GPH anomalies are shown in the bottom two rows. El Niño and La Niña conditions are shown in (a, b, e, f). El Niño with and without droughts are shown in (c, g) and (d, h), respectively. Solid/dashed lines indicate positive/negative anomalies. Stippling indicates significant differences at a 95% confidence level. The box marks the study area [Colour figure can be viewed at wileyonlinelibrary.com]

Imfeld, N, Barreto Schuler, C, Correa Marrou, KM, et al. Summertime precipitation deficits in the southern Peruvian highlands since 1964. Int J Climatol. 2019; 39: 4497– 4513. https://doi.org/10.1002/joc.6087

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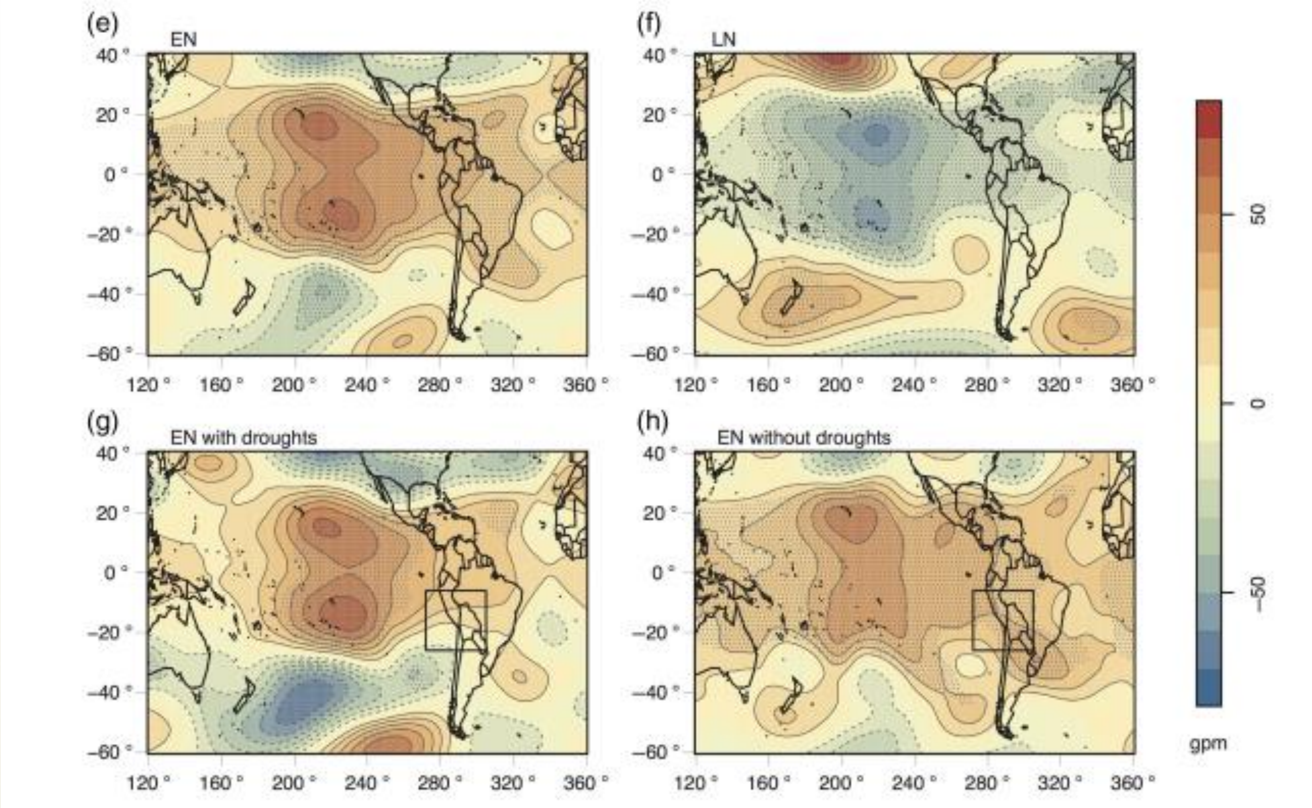

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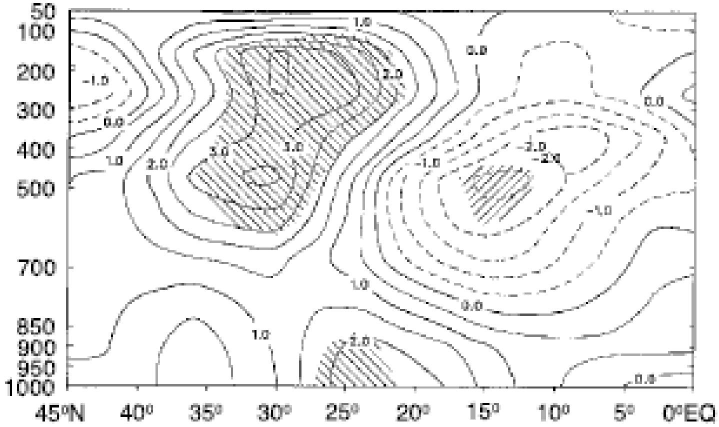

Figure 17.5: *Composite analysis of the latitude/height distribution of the zonal wind in JJA averaged between 60° E and 90° E longitude as simulated in a 20-year integration with an AGCM. The difference between the six cases with strongest Southeast Asian monsoon precipitation signal and the six cases with weakest precipitation is shown. Local t tests were performed to test the stability of the difference. Rejection of the local zero difference null hypothesis at the 5% significance level is indicated by cross-hatching. From [443].*

Von Storch & Zwiers, 2003

<u>Significancia con T-Test</u>

$$t = \frac{\widehat{\mu}_X - \widehat{\mu}_Y}{S_p\sqrt{\frac{1}{n_X} + \frac{1}{n_Y}}},$$

$$S_p^2 = \frac{\sum_{i=1}^{n_X}(\mathbf{x}_i - \widehat{\mu}_X)^2 + \sum_{i=1}^{n_Y}(\mathbf{y}_i - \widehat{\mu}_Y)^2}{n_X + n_Y - 2}.$$

Von Storch & Zwiers, 2003

…Revisar Test de Mann-Whitney