



*Supplement of*

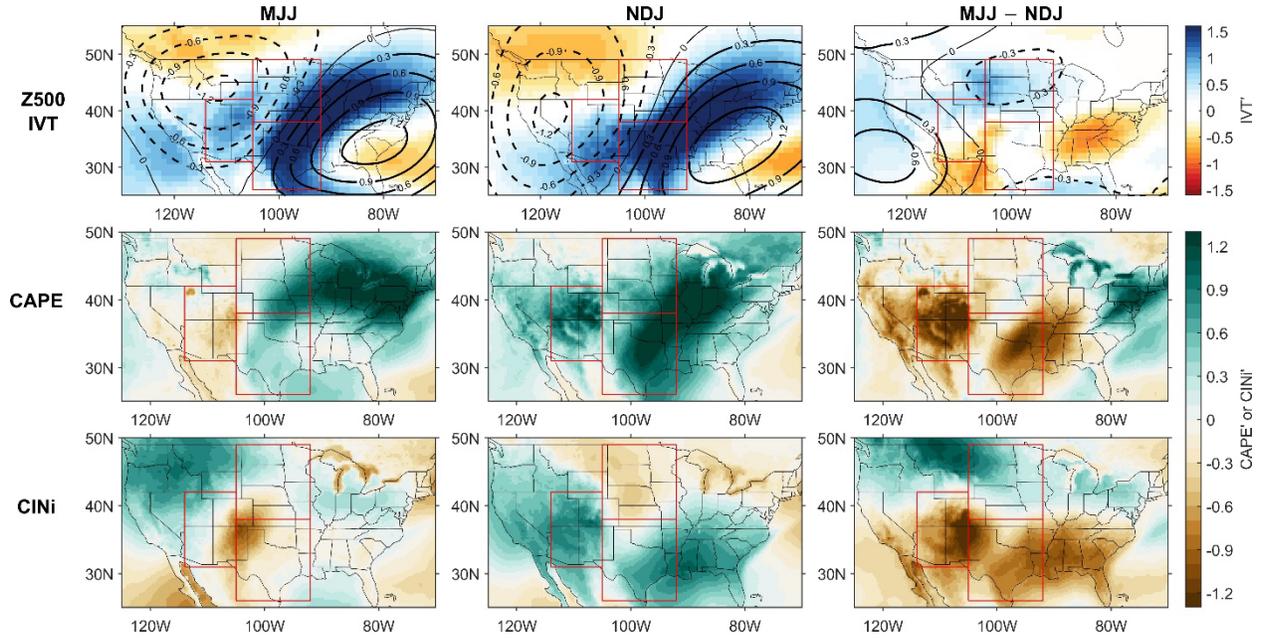
## **Quantifying the contribution of atmospheric circulation to precipitation variability and changes in the US Great Plains and southwest using self-organizing map–analogue**

**Yizhou Zhuang and Rong Fu**

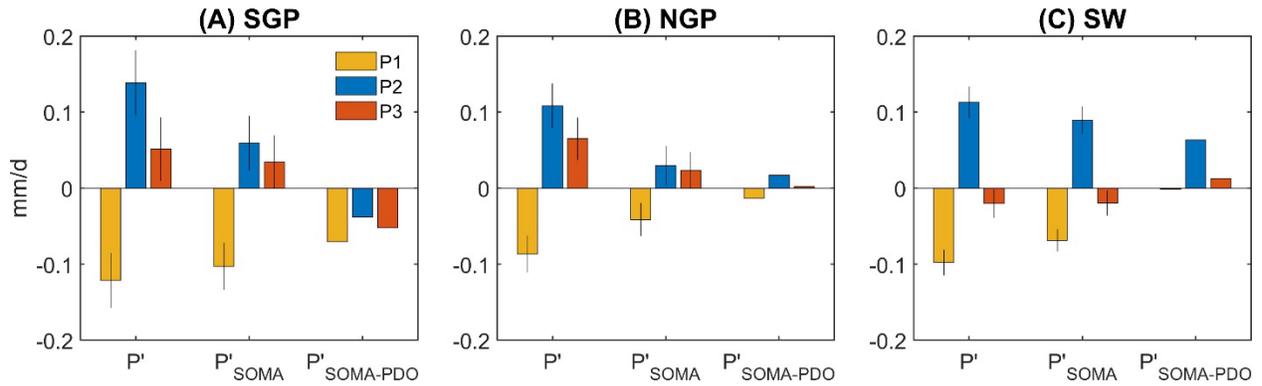
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## Supplements



**Figure S1: Composite standardized Z500' (1st row contours), IVT' (1st row shades), CAPE' (2nd row), and CINI' (3rd row) map for node D1 during May-July (MJJ, 1st column) and November-January (NDJ, 2nd column), as well as the difference between MJJ and NDJ (3rd column).**



**Figure S2: Same as Fig. 8, but for a different PDO phase threshold (positive:  $PDO > 1.0$ , negative:  $PDO < -1.0$ ).**

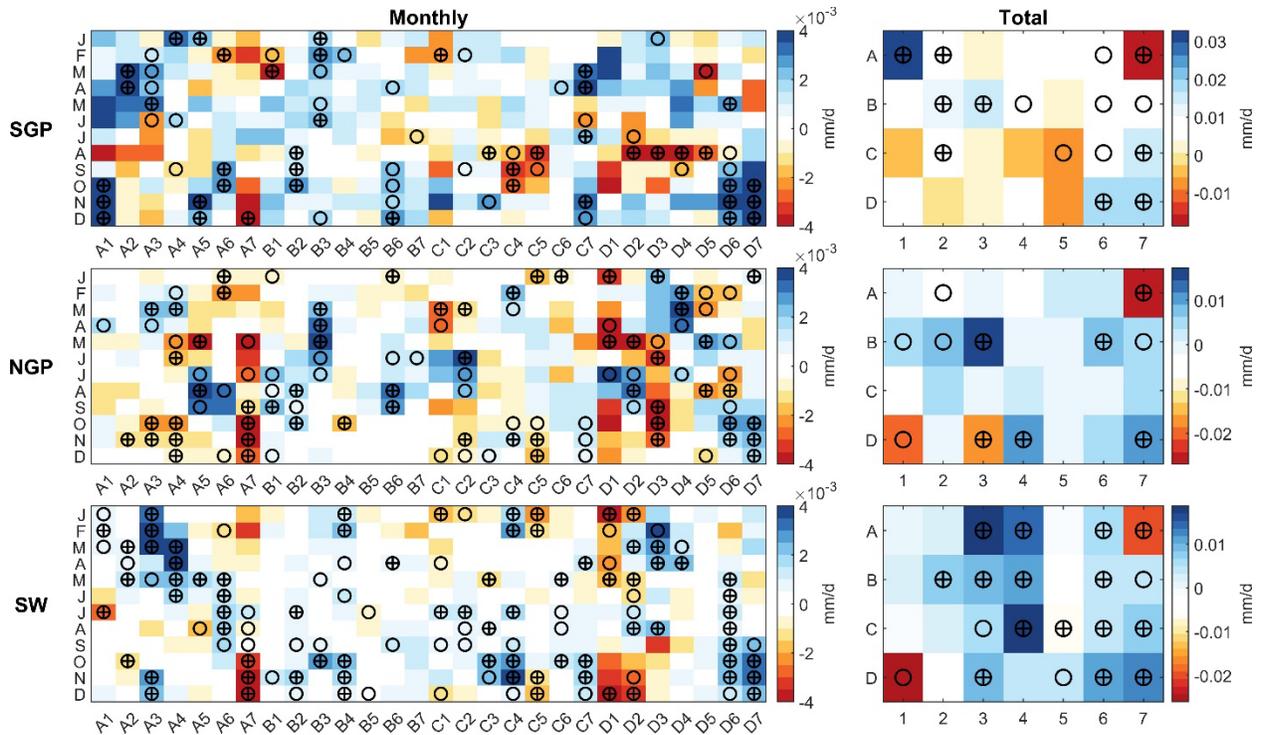


Figure S3: Same as Fig. 9, but for a different PDO phase threshold (positive:  $\text{PDO} > 1.0$ , negative:  $\text{PDO} < -1.0$ ).

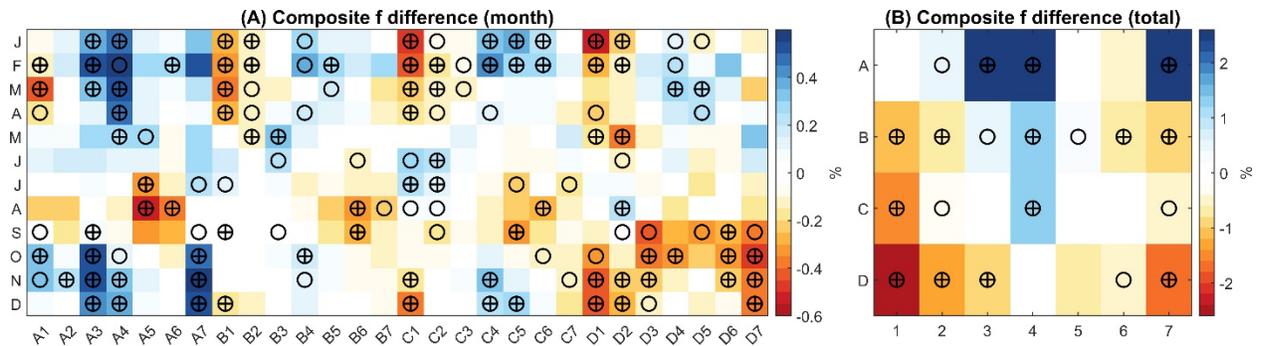
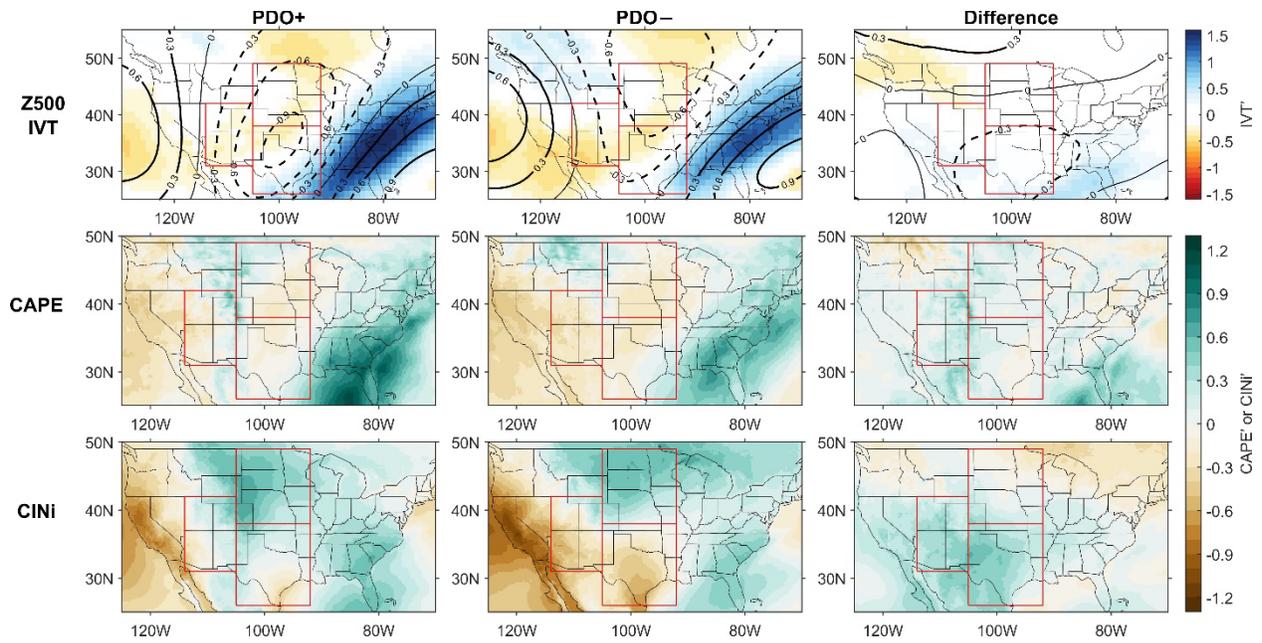


Figure S4: Same as Fig. 10, but for a different PDO phase threshold (positive:  $\text{PDO} > 1.0$ , negative:  $\text{PDO} < -1.0$ ).



**Figure S5: Composite standardized Z500' (1st row contours), IVT' (1st row shades), CAPE' (2nd row), and CINI' (3rd row) map for node A1 during positive PDO phase (1st column) and negative PDO phase (2nd column), as well as the difference between positive and negative phases (3rd column).**