



Supplement of

Interactions between precipitation, evapotranspiration and soil-moisture-based indices to characterize drought with high-resolution remote sensing and land-surface model data

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Supplement:

		Spatial dimension		
		10129px (full area)	2580px (1/4 area)	516px (1/20 area)
Temporal dimension	r Pearson correlation values of full length and full area series vs.			
	(1/2 length series)	0.97	0.97	0.97
	(1/4 length series)	0.92	0.81	0.49
	(1/8 length series)	0.78	0.73	0.19

Table S1: Impact of temporal and spatial subsets of the evapotranspiration dataset on the consistency of the ETDI series.

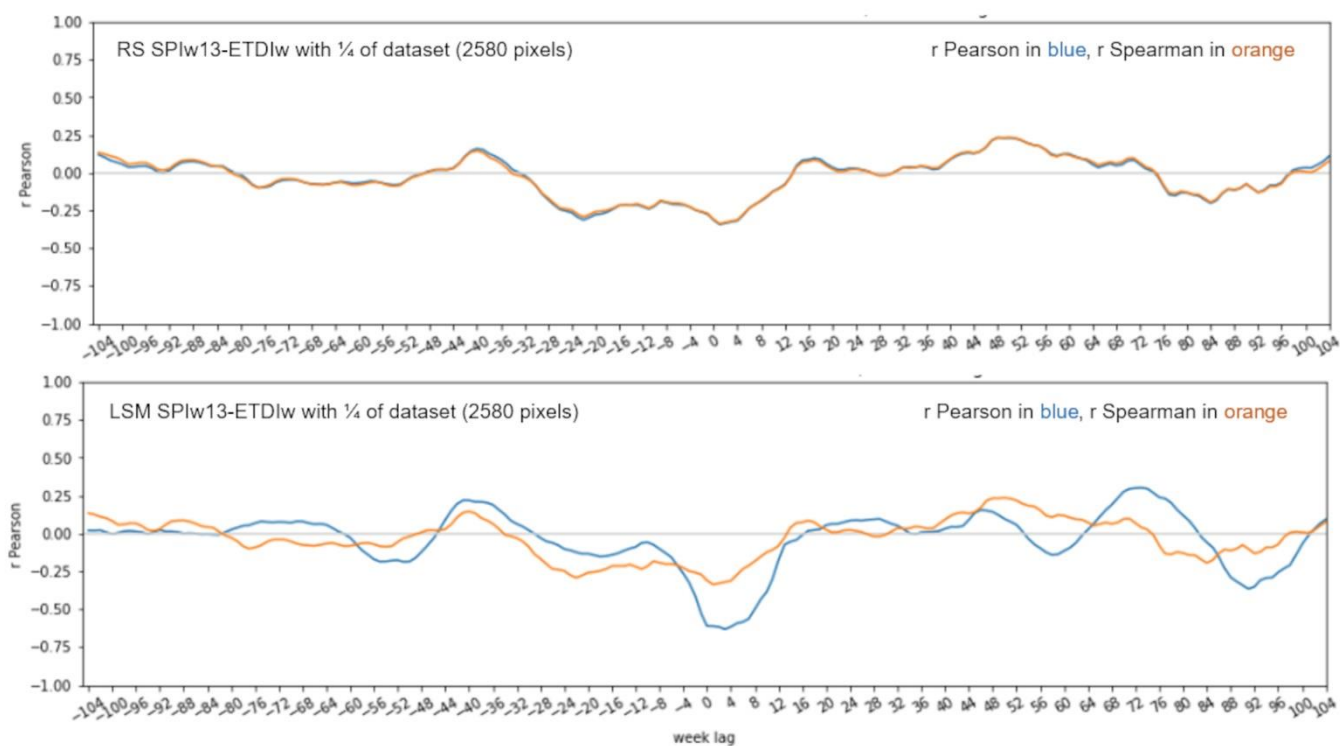
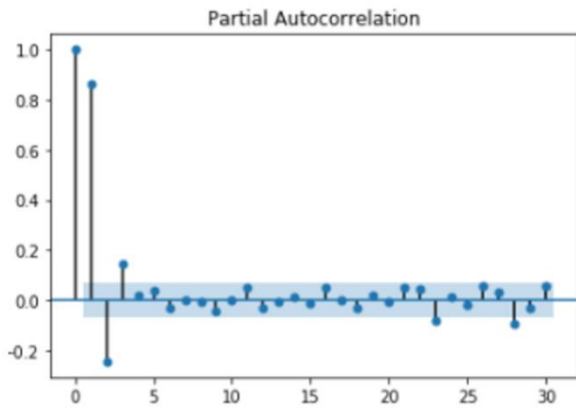
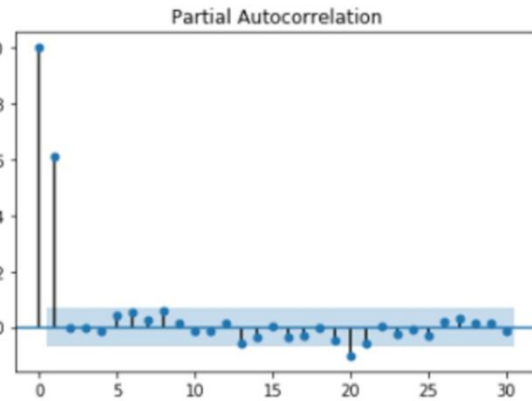


Figure S1: Similarity of series of lags calculated with the r Pearson coefficient and r Spearman coefficient between SPIw13-ETDIw indices considering 1/4 of the total dataset (2580 pixels) using (a) RS data and (b) LSM data. r Pearson series colored in blue, r Spearman in orange.

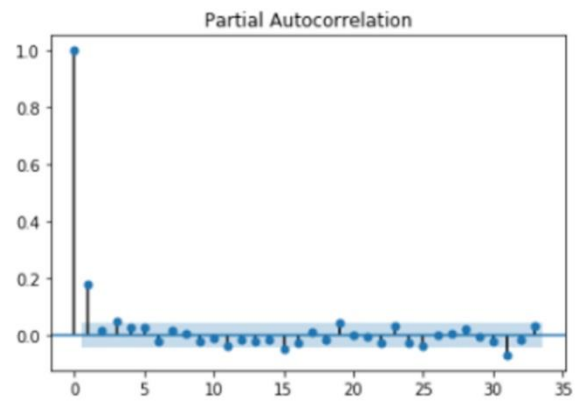
ETDIw



SMDIw



SPIw-1



SPIw-26

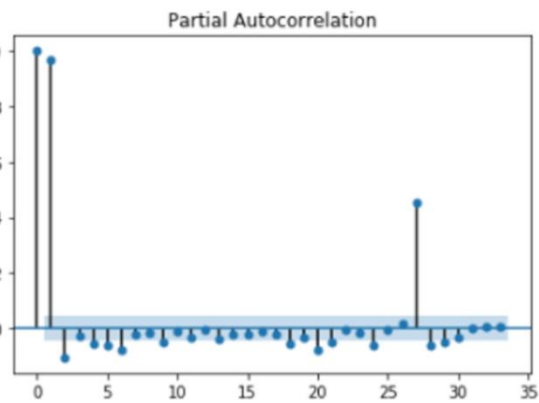


Figure S2: Partial autocorrelation results of the RS ETDI and SMDI series indicating a primary balance between the first two significant factors of autocorrelation. The interpretation of the results suggests these partial autocorrelation plots depict the waving interplay between positive and negative correlations of each variable with other factors, which supports the definition of drought anomalies as an ever-changing balance of influence between the key variables of the land-atmosphere system.