Comments on "Monitoring Vegetation Condition using Microwave Remote Sensing: The Standardized Vegetation Optical Depth Index SVODI"

Abstract:

Line 10: delete "by"

Line 18: delete "anomalies" after "soil moisture" as it is redundant – you already said "anomalies" earlier in the same sentence

Introduction:

Line 65: missing "and" before "estimate"

Methods:

Line 192: please include a citation for L-band being mostly sensitive to vegetation structure

Line 193: change "interested on" to "concerned with"

Section 3.1.1: Based on the Hao and AghaKouchak (2013) and Guo et al. (2019) papers you reference, it seems like the choice of a copula function is important when constructing a multivariate index. Can you mention the copula that you used in the theoretical example that you discuss here?

Figure 2: the terminology of "p-values" is confusing here. Do you mean values of cumulative probability density, or something like that? Typically, p-values refer to testing statistical significance, which it doesn't seem like you are doing in this figure

Line 269: I found this sentence confusing at first; it would be useful to say explicitly that the correlation (as a function of time offset) is what you are finding the local maxima and first derivative of

Results:

Line 310: again, please use a different terminology than "p-value"

Line 348: maybe I don't understand the TCI, but I thought the TCI represents a *cause* (heat stress) of vegetation changes, not an *effect*

Figure 10: "Fraction of percentage area" is redundant; just say "Percentage area."

Section 4.2.4: In Figure 11, it looks like the SVODI over the Amazon has more high frequency variability and less low frequency variability, compared to the VHI and scPDSI. Could you add a sentence to this section addressing this difference and providing a possible explanation for it?