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First comparisons between surface soil moisture products derived from land surface temperature anomalies and microwave radiometric measurements over West Africa

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A qualitative comparison was done between two different ways to provide surface soil moisture products. The first one is based on land surface temperature (LST) anomaly derived from Land SAF Meteosat 8 LST products. This product is calculated for each 15 minute Meteosat 8 slot as the LST anomaly relative to the mean LST for that slot over the previous 10 days. The obtained map is a spatial distribution of relative surface temperatures which can be related to wet and dry regions. The second product is based on AMSR-E daily microwave measurements which are physically related to the soil dielectric permittivity. The soil dielectric permittivity can then be related to the surface soil moisture. First comparisons lead to both strong similarities and opposite behaviours.