

# Mapping mangrove and rainforest using P- and L-band polarimetric radar acquisitions from TropiSAR campaign

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## **Abstract**

From P- and L-band TROPISAR radar acquisitions over the Sinnamary and Kaw regions of French Guiana, we show how polarimetric decomposition helps in characterizing typical local vegetation such as mangrove, rainforest, and grassland. From this decomposition we establish a rough cartography and then refine our characterization using normalized radar cross-section. Our results can be verified by comparison with previous studies carried out in L-band and then reapplied in further regions, otherwise difficult to access physically. The obtained information also contributes to larger studies on biomass or on soil-moisture index.