

# **Texture-enhanced detection of tropical deforestation using ALOS-PALSAR**

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## **Abstract**

The development of reliable forest monitoring systems in tropical regions is crucial to support initiatives designed to limit the spread of deforestation. Optical monitoring is hampered by the frequent cloud cover in tropical regions, but this is not a problem for space-borne Synthetic Aperture Radar (SAR) systems. We have previously developed techniques of using L-band SAR data from the JAXA Advanced Land Observing Satellite (ALOS) able to detect 70% of deforestation at a false alarm rate of 20%. In this paper we build on that work to show that the introduction of textural measures can boost the equivalent detection rate to 82%. We also extend the study to discuss the transferability of these results to adjacent regions.