

DETECÇÃO DE ÁREAS DE FLORESTAS INVARIANTES EM SÉRIES TEMPORAIS UTILIZANDO RANDOM FOREST

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ABSTRACT

The emergence of vegetation change detection algorithms in the last decade is impressive. But the results still have a lot of noise that needs to be cleaned. And the data cleaning process still uses other landcover mapping results. Besides that, the necessity to generate invariant land use classes is important to know particularly to forest areas. Thinking about that, this paper seeks to create a new form of mapping these invariant areas that can be used to mask noise and as an input on other conservation and restoration studies. The methodology proposed here uses the Google Earth Engine platform and a Random Forest classifier to classify invariant forest areas using all the images in the time series at once. The results found that the new approach found better results than the typical use of previous mapping. We found an overall accuracy of 91,7% using this method. Also, this paper seeks to contribute to the remote sensing community showing after exhaustive testing, good options of variables to use on this type of work.

Keywords: Séries Temporais, Detecção de Mudanças, Florestas, Google Earth Engine, Random Forest

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