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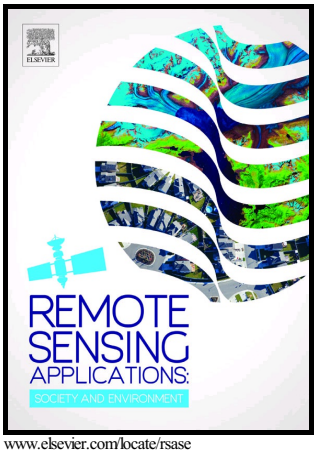

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Landsat-based remote sensing of the colored dissolved organic matter absorption coefficient in a tropical oligotrophic reservoir

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Abstract Colored dissolved organic matter (CDOM) is a photoactive fraction of organic carbon that can be detected via remotely sensed data (proximal and satellite). The retrieval of the absorption coefficient of CDOM (a_{CDOM}) in reservoirs is important because it is related to the carbon budget and is a possible source of greenhouse gas that is emitted from aquatic ecosystems. In this context, we divided this study into three steps: (1) evaluating four retrieval algorithms for aquatic CDOM proposed for different types of waters; (2) recalibrating the algorithms using field data; and (3) adjusting new algorithms based on Landsat 5 TM bands. This research aimed to evaluate the use of