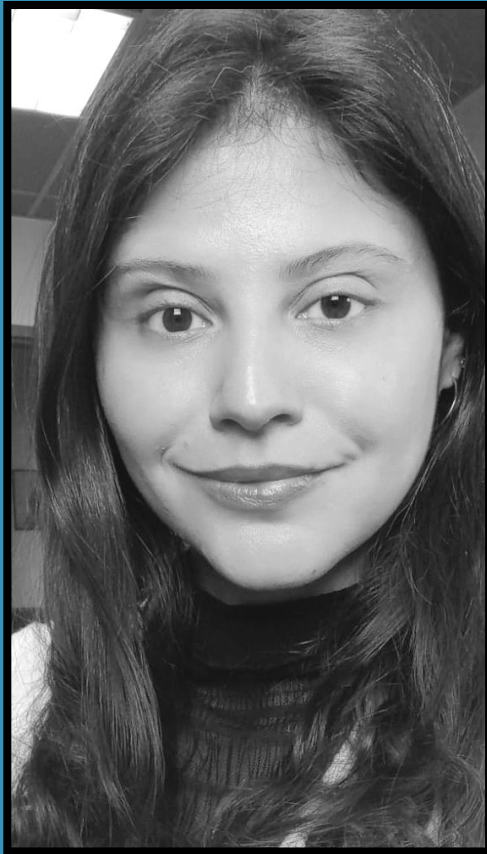


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INTERNAL TIDES AND INTERNAL SOLITARY WAVES IN AMAZON BASIN USING REMOTE SENSING ANALYSIS

Abstract: The Amazon oceanic region is known for its intense activity of internal tides (ITs; also called baroclinic tides) and internal solitary waves (ISWs). The ISWs found off the Amazon shelf are associated with the disintegration of the ITs several hundred kilometers from IT generation regions on the steep Amazon shelf break. The baroclinic tides are generated when the barotropic tidal currents flow through a steep varying bathymetry in a stratified ocean. The barotropic and baroclinic tides act together in redistributing energy from larger to smaller oceanic scales as a tidal energy cascade. The strong ITs off-Amazon's shelf may cause vertical mixing when dissipating part of their energy locally, changing the water mass properties such as temperature and chlorophyll concentration.

Short bio: Carina de Macedo received an M.Sc. degree in remote sensing from INPE, National Institute for Space Research, Brazil, 2014. In 2019, she received a Ph.D. in information engineering from Università degli Studi di Napoli "Parthenope", Italy. Currently, she works as a Research Engineer at CNRS, Wimereux, France. Her research activities are mainly devoted to electromagnetic modeling, polarimetric SAR data analysis, Internal Solitary Wave analysis based on SAR and optical data, and remote sensing applied to marine applications.

→ Thursday 13 June, 11:00,

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