

# SATELLITE ESTIMATES OF PHYTOPLANKTON PRIMARY PRODUCTION AT SANTOS BIGHT, SOUTHWESTERN-SOUTH ATLANTIC: COMPARISON OF ALGORITHMS

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**Abstract.** This study provides a satellite-based estimate of potential primary production in the Brazilian Southeast coast from *in situ* and Sea-viewing Wide Field-of-view Sensor (SeaWiFS) ocean color data. A non-spectral and vertically homogeneous semi-analytical algorithm and a spectral vertically non-homogeneous numerical algorithm were applied to the satellite ocean color data, which incorporate simultaneously measured *in situ* photosynthetic parameters. A vertically generalized production model was also tested. The best performing ocean colour remote sensing primary productivity algorithm tested agreed with the <sup>14</sup>C-based estimates within a factor of 2.