



Doctoral Thesis Title: Detection of methane point emissions from satellite data

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Abstract:

The remote measurement of gas emissions to the atmosphere is a powerful tool for assessing its environmental impact. In particular, the detection of point emissions of greenhouse gases may allow the attribution of emissions to the natural or anthropogenic entities responsible.

This doctoral thesis project will develop methods for the detection and quantification of point emissions of greenhouse gases (in particular, methane) from satellite globally. For this, a global anomaly analysis will be carried out using data from the Sentinel-5P / TROPOMI mission, which will then be further investigated with high spatial resolution spectroscopy missions such as Gaofen-5, PRISMA and EnMAP.

This research is part of the research line on the development of remote sensing methods in our group, including the TROPOSIF contract with the European Space Agency and collaborations with groups in SRON (Holland), LSCE (France) and Caltech (USA).

Available Means:

Computers with software for scientific data processing and visualization

References:

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