Newly available remote sensing datasets on sun-induced chlorophyll fluorescence (SIF) offer novel opportunities to develop a better understanding of seasonal photosynthetic activity and forest productivity in the Amazon region. At the same time, these data can be used to evaluate ecosystem model simulations of forest productivity. The Master thesis aims at analysing SIF data from a new satellite (OCO-2), and compare it to other SIF data and to the output from the ecosystem model LPJ-GUESS. The main goal is to compare observed and simulated patterns of photosynthetic activity and to analyse seasonal as well as inter-annual variability. Programming skills (Matlab, R or Python) are required.

The thesis will be co-supervised by

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