

30.11.2017, 15:15

KlimaCampus Kolloquium

Kirstin Krüger

Does the ocean impact the ozone layer?

Natural, halogenated very short-lived substances (VSLS) with an atmospheric lifetime $\tau < 0.5$ yr play an important role in the stratospheric ozone budget besides the anthropogenic long-lived chlorine- and brominefluorocarbons. The tropical oceans are a known source of reactive iodine and bromine to the atmosphere such as the VSLS methyl iodide (CH_3I), bromoform (CHBr_3), and dibromomethane (CH_2Br_2). They contribute to the halogen loading of the stratosphere if they are transported fast enough within, i.e., deep tropical convection. The tropical West Pacific and Indian Ocean are of special interest since the oceanic compounds of the VSLS are projected to have hot spots for both their emissions and transport pathways to the stratosphere. This study will give an overview of 10 years of research work on VSLS sources in the tropical oceans and their transport pathways and contribution to the stratospheric halogen level to answer the question.

**Kirstin Krüger from the Section for Meteorology and Oceanography (METOS), University of Oslo, is invited by Hauke Schmidt (MPI-M).
Bundesstraße 53, Room 22/23 (ground floor)**