

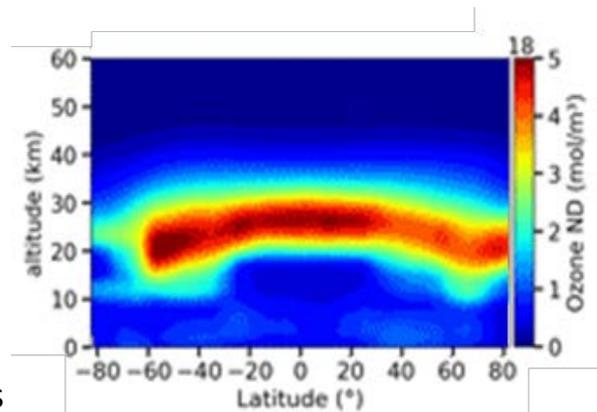


## New Master Thesis Topic

### **Title: Retrieval of vertical profiles of ozone from TROPOMI measurements**

Short description (with picture if possible):

Crucial importance for the human life with a UV-protection in the stratosphere and harmful impact in the troposphere, makes ozone to one of the top priority atmospheric species for the scientific community requiring a continuous monitoring. Satellite instruments are a suitable tool to perform continuous observations of ozone on the global scale.



This thesis focuses on the retrieval of ozone vertical profiles from observations of the scattered solar radiance in the UV spectral range from nadir viewing TROPOMI instrument. The main objectives are to update the existing retrieval algorithm to work with the newest version of the Level 1 data (spectral radiances) from TROPOMI, to retrieve vertical profiles of ozone for a representative set of observations and to compare the results to the data from other instruments.

Skills needed:

The candidate should be able to write python scripts for data handling and creating plots.

Name of the IUP research group incl. two-line description of the research area  
Limb retrieval and radiative transfer group.

We focus at retrieval of vertical distributions of stratospheric species and tropospheric ozone as well as at the development of the radiative transfer model SCIATRAN

Topic for students of

M.Sc. Environmental Physics

M.Sc. Space Sciences and Technologies

---

Contact person: Dr. Alexei Rozanov

Email: [alex@iup.physik.uni-bremen.de](mailto:alex@iup.physik.uni-bremen.de)

Room/Tel: S4240/62083

(14.09.2023)