

## Dr. Felix Plöger

Affiliated with the Institute of Energy and Climate Research Stratosphere (IEK-7)

Helmholtz Young Investigators Group: Modelling of climate-relevant processes: “Assessment of stratospheric processes and their effects on climate variability (A-SPECi)”



“Understanding the dynamical and chemical atmospheric processes in the complex climate system and contributing to preserve the Earth for future generations.”

Climate variations on inter-annual to decadal time scales can greatly exceed climate change predictions based on steadily rising greenhouse gas levels, and may severely impact ecosystems and society. However, these variations are inadequately captured in current climate models. We investigate key processes for variability in the trace gas

composition of the stratosphere (the atmosphere between 10-50km altitude), which are relevant for such climate variations, and assess the related climate effects. Such processes comprise the global-scale Brewer-Dobson circulation, and stratosphere-troposphere exchange processes like transport of anthropogenic pollution in the

Asian monsoon. Combining detailed process modelling with global climate modelling and atmospheric observations we aim at improving the representation of these processes in atmospheric models and thereby contribute to improving medium-term climate predictions.

### What is/ has been the greatest challenge as head of a young investigators group?

Balancing time for administrative tasks, for research activities and time for my family.

**Start of funding period:**

**October 2016**

**End of funding period:**

**September 2021**

**Staff:**

**2 PhD students, 2 Postdocs**

**University affiliation:**

**University Wuppertal**