



Münchner Physik- Kolloquium

Sommer
2018

The response of the global stratospheric circulation to climate change

Prof. Dr. Hella Garny, *Meteorologisches Institut, Ludwig-Maximilians-Universität München*

Monday, 23 April 2018, 17:15 h
Hörsaal 2, Physik-Department der TUM, Garching

The role of the stratosphere in the climate system is increasingly being appreciated, and it is known that the circulation of the stratosphere can significantly influence surface climate and weather. The fate of the large-scale circulation of the stratosphere in a changing climate is a much discussed topic in the last years. Progress has been made on the understanding of the mechanisms of the general acceleration of the circulation in response to climate change as simulated by models. However, observational evidence on circulation changes is still not reconciled with model simulations and with our mechanistic understanding. The key open questions on large-scale circulation changes and their possible impacts on the climate system that will be discussed during this talk are (1) Process understanding: How is tracer transport (that is detectable from observations) coupled to the wave-driven mean mass circulation, the residual circulation? (2) How large is the uncertainty in the projections due to sub-grid scale parametrized wave forcing of the circulation? (3) How certain are we on the deduction of observational measures of stratospheric transport times?

Student event: Meet the speaker

We invite you to a **student-only** discussion-round with Prof. Dr. Hella Garny before her Munich Physics Colloquium talk.

Be curious and feel free to ask any question.

Monday, 23 April 2018, 16:00 h
Seminar room PH 3076 (upper floor), Physik-Department der TUM, James-Franck-Straße 1, Garching

