



## Water vapor in the mesosphere as seen by MIPAS

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Water vapour is a key species in the middle and upper atmosphere. It is the source of hydrogen radicals, which affect the ozone chemistry, it is the precursor of polar mesospheric clouds (PMCs), which are thought to be an indicator of climate change, and it is an excellent dynamical tracer. Global-scale transport processes and photolysis from Lyman-alpha radiation dominate water vapour distributions in the MLT. In this talk, we will run our eyes over middle and upper atmosphere measurements of water vapour to try to understand its seasonal variations, its behaviour during the PMC season, the mesospheric response to sudden stratospheric warmings, the mesospheric oscillations, and the inter-hemispheric differences and coupling. We will do so based on MIPAS global observations of this intriguing atmospheric region taken during more than six years.