



Recent dynamics studies on the stratosphere and the mesosphere using Rayleigh lidar data

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The Rayleigh lidar is a powerful tool to measure the vertical temperature profile from 30 to 80/90 km and its evolution during the night. The Rayleigh lidar set-up at Haute-Provence Observatory (OHP, 44°N, 6°E) is operated routinely since 1979. It belongs to the NDACC (Network for Detection of Atmospheric Composition Change) and is included in the FP7 European project ARISE. It allows monitoring the long-term evolution of the temperature study several dynamics phenomena: gravity waves, atmospheric tides, planetary waves and sudden stratospheric warmings. Recent results will be presented and the possible synergy with other instruments (micro-barometers, airglow spectrometer, wind lidar, wind microwave spectrometer) installed at OHP within the ARISE project will be discussed.