

## Doppler wind measurements in Venus mesosphere

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### Abstract

Solar light gets scattered at haze top level in Venus mesosphere, in the visible range (67-km altitude), while CO<sub>2</sub> absorption occurs almost 7 km higher in the mesosphere, which corresponds to a difference of about 2 pressure scale heights.

We present Doppler velocity measurements performed by scanning Venus with the long slit high resolution spectrometer MTR ( $R > 100000$ ) of the Solar telescope THEMIS (Teide Observatory). A first test run was lead in late 2007 [1] during an international ground based support to the Venus Express mission [2].

Here, we analyse the data obtained during two observation run performed in May 2008 and September 2009 in 4 narrow spectral ranges (10-Å intervals each) centred around 3 Fraunhofer lines (Mg 5172 Å, Fe 5550 Å, Na 5890 Å) and a CO<sub>2</sub> band at 8691 Å.

### References

- [1] Gaulme, P. et al. (2008) PSS 56, 1335-1343
- [2] PSS 56 (2008), Editors Lellouch, E and Witasse, O.