



Dynamic behaviour of the upper solar atmosphere: II. SUMER/SOHO, TRACE and VTT observations

J.M. Krijger (1), P. Heinzel (2), W. Curdt (3), W. Schmidt (4)

(1) Royal Observatory Belgium, SIDC, Ringlaan 3, 1180 Brussel, Belgium (krijger@sidc.be)

(2) Astronomical Institute, Academy of Sciences of the Czech Republic, CZ-25165 Ondřejov, Czech Republic

(3) Max Planck Institute for Solar System Research, Max-Planck-Str. 2, 37191 Katlenburg-Lindau, Germany

(4) Kiepenheuer-Institut für Sonnenphysik, Schoeneckstrasse 6, 79104 Freiburg, Germany

We analyze oscillations in the solar atmosphere using simultaneous observations from the SUMER spectrometer onboard SOHO, the TRACE satellite, and the groundbased VTT in different Lyman lines, UV continua and Ca II K. We compare the oscillatory patterns detected with these different diagnostics and conclude that, although the whole atmosphere exhibits oscillatory behaviour with periods between 2-8 min (longer ones being also present), there are no obvious similarities between oscillations of the lower chromosphere and lower transition region. We confirm that TRACE 160.0 nm can be used as a good substitute for groundbased Ca II K. We also show that the Ly α construct derived from the TRACE 121.6 nm passband following the method of Handy et al (1999) originates in the wing of Ly α and shows a similar morphology as the Ly α wing emission observed by SUMER.