

HIGH FREQUENCY OSCILLATIONS IN THE SOLAR CHROMOSPHERE AND THEIR CONNECTION WITH HEATING

A. Andic¹, D.B. Jess^{1,3}, D.S. Bloomfield², M. Mathioudakis¹ and F.P. Keenan¹

¹*Astronomical Research Centre, Queen's University Belfast, University Road, Belfast, BT7 1NN, UK*

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

³*NASA Goddard Space Flight Center, Solar Physics Laboratory, Code 612.1, Greenbelt, MD 20771, USA*

High frequency acoustic waves are suggested as a source of mechanical heating in the quiet chromosphere. The frequency interval 70mHz to 1.6mHz is investigated using observations obtained with ground based telescopes - the VTT Tenerife and the Dunn Solar Telescope at the National Solar Observatory. We analyze several spectral lines, Fe I 543.45nm, Fe I 543.29nm and G-band; and observe that the majority of oscillations are connected with the magnetic fields, therefore not yielding enough mechanical flux for the heating of the chromosphere. This correlation also observable in the quiet Sun areas.