

OBSERVATIONAL REVIEW ON THE GLOBAL SOLAR AND STELLAR CORONAL SEISMOLOGY

D. Banerjee

Indian Institute of Astrophysics, Koramangala, Bangalore 560034, India

With multi-wavelength observations from ground and space-based instruments it has been possible to detect waves in a number of different wavelengths simultaneously and to, consequently, study their propagation properties. High-resolution wave observations combined with forward MHD modelling can give an unprecedented insight into the connectivity of the magnetized solar atmosphere, which further gives us a realistic chance to construct the structure of the magnetic field in the stellar atmosphere. This type of exploration is also termed as magnetic seismology. In this review I will focus on global waves, like EIT waves. I will also address the possibility of finding out the properties of magnetic structures while studying the interaction of global waves with coronal loops. A Promising new way to probe stellar atmosphere is to use our knowledge of coronal seismology on the Sun and to apply it to more distant stars. It will also enable us to measure properties such as the lengths of loops linked with stellar flares and the strengths of coronal magnetic fields on stars. In the last part I will review the current status of the stellar coronal seismology.