



Lichfield Science & Engineering Society

LICHFIELD **GARRICK**
Theatre & Studio

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MD, MA, DPhil

8:00 pm on Thursday 12th May 2016
in the Studio Theatre of the Lichfield Garrick, Castle Dyke, Lichfield

TAKING THE PULSE OF THE SUN AND OTHER SUN-LIKE STARS

Professor Yvonne Elsworth FRS

Professor of Helioseismology & Poynting Professor of Physics
School of Physics and Astronomy
University of Birmingham

Professor Elsworth has been an academic at the University of Birmingham since mid-1980s with an interest in the study of the Sun. She led the research group for many years.

More recently, this work has been extended to studies of stars like the Sun and also those in a later stage of their life. For many hundreds of years, knowledge about stars came from observations of their surfaces. This is great but limited. In recent years these studies have all been revolutionised by observations of the interiors of stars. The methods used are inherently simple even if they require precise techniques to make them effective. They rely on observing the effects of simple sound waves propagating inside the stars.

We are able to build simple maps of the interior regions including the energy-generating cores. Several major deductions which have had far-reaching implications will be discussed. Our knowledge of the evolving interior of stars underpins our understanding of both the far reaches of the Universe and nearby objects including our Sun. This is a topic with local and far reaching implications.

We have another interest in some of the stars where they are known to host planets. The *Kepler* mission was launched some 5 years ago by NASA with the aim of detecting Earth-like planets in the habitable zone around sun-like stars. We have not yet found an Earth analogue but many fascinating discoveries have been made.

For further information, please see our website at www.LSES.org.uk
Students and Members Free.

Visitors £5.00. Tickets are not issued in advance, please pay at the door.

Members must sign in. Those signing in before 7:50 pm will have precedence over all visitors.

This lecture is expected to finish by 10.00 pm.