

Bibha Chowdhuri Memorial Lecture

Vigyan Vidushi 2022 (Physics)

5 July 2022 @ 4.30 pm IST (Online)



Living with a star

We live in the backyard of a star. It is not a particularly big star, nor a particularly exotic one, but it controls life on Earth. We therefore need to understand how it behaves. We know the Sun changes on time-scales of decades and that solar emissions can damage technology. In this talk, I will discuss what we know about the Sun and the vast mysteries that remain. I will also touch upon how the Sun can affect our daily lives and what mitigation effects, and then focus on how we study the interior of the Sun to understand its structure and dynamics, and its time variation. The talk will showcase how some basic principles of physics help us in understanding the Sun and its interior.

Prof. Sarbani Basu Yale University, USA



Sarbani Basu is the William K. Lanman Jr. Professor of Astronomy at Yale University, USA. Prof Basu completed her PhD from TIFR in 1993. Afterwards she held postdoctoral positions in London, Denmark, and at the Institute for Advance Study, in Princeton. She joined Yale University in 2000. Prof. Basu has won several awards and accolades. She received the Vainu Bappu Gold Medal of the Astronomical Society of India in 1996 for her early work on helioseismology. In 2018, she was awarded the George Ellery Hale award of the Solar Physics Division of the American Astronomical Society. She is an elected Fellow of the American Astronomical Society. Prof. Basu conducts research in the fields of solar and stellar astrophysics using seismic data. She has been studying both the general properties and the details of the structure and dynamics of the Sun, focusing on solar-cycle dependences.



