Astronomy & Astrophysics Division Seminar

Title : Density turbulence in the solar wind using low frequency angular broadening observations

Speaker : Dr. K. Sasikumar Raja (PRL, Ahmedabad)

Date **:** 15.11.2018 (Thursday)

Time **:** 16:00 Hrs

Venue **:** Seminar Room # 113/114 (Thaltej Campus)

Abstract:

Various remote sensing observations have been used so far to probe the weakly compressible density turbulence in the solar wind. Using the angular broadening observations of radio celestial point like sources, we have studied the various turbulent parameters in the solar wind: anisotropic broadening, amplitude of density turbulence, density fluctuations, proton heating rate and the dissipation scales. For this study, we used the observations of Gauribidanur radioheliograph, Very Large Array and other historical observations carried out during1952-2017. In this talk, I will discuss, how these parameters vary with heliocentric distance range ~2-40 Rsun and the solar cycle. The newly launched Parker Solar Probe may provide valuable insights in understanding these long standing issues of the solar wind.