



Udaipur Solar Observatory/ Physical Research Laboratory

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SEMINAR

Stokes profile inversion technique

(Rahul Yadav, USO/PRL)

Inversion techniques are the most powerful and sophisticated tool to infer the information about the solar magnetic field and the thermodynamic properties from the spectral line and Stokes profiles. They are based on non-linear fitting of the synthesized Stokes profiles with the observed ones, generally using the Levenberg-Marquardt algorithm. We are developing an inversion code to solve the polarized radiative transfer equations. The code assumes that the properties of solar atmosphere are well described by the Milne-Eddington atmosphere. In this talk, I will share my understanding about the implementation of inversion techniques and specifically discuss the synthesis of Stokes profiles.

Date: Jun 30, 2014

Time: 11:00 hrs

Venue: USO Seminar Hall