

Título/Title:

Mars: Global Dust Storm dynamics' study

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Descrição/Description:

Mars recently suffered a dust storm at a global scale. Elements of the Institute of Astrophysics and Space Sciences (IA) obtained observation time in the Very Large Telescope (VLT-ESO) granted by the director of the observatory (DDT). The data obtained with the high resolution UVES spectroscopy will allow, for the first time, to obtain the dynamics study of a global dust storm on Mars, using visible wavelengths and their related high-resolution spectra, in order to retrieve a wind velocity map with our Doppler velocimetry method.

Workplan:

The candidate will learn how to use MATLAB and/or IDL environment for which he will be trained in order to obtain the high resolution spectra of the Global Dust Storm on Mars. In a second phase he will learn Doppler techniques to study the dynamics of this dust storm.

Requisitos/Requirements:

The project is based on the use of MATLAB and IDL routines. Therefore, the candidate should be willing to program in these programming environments and possibly have a basic knowledge of MATLAB.