

Project Details

ROSES ID: NRA-01-OSS-01

Selection Year: 2002

Program Element: Independent Investigation: Solar Helio LWS

Project Title:

Modeling of Solar Influences on Atmospheric Dynamics

PI Name: Alexander A. Ruzmaikin

PI Email: atn@g.ucla.edu

Affiliation: Jet Propulsion Laboratory

Summary:

Our goal is to understand mechanisms by which weak solar variability can affect terrestrial global climate. We propose to investigate how solar changes influence the long-term dynamics of the atmosphere. Our objectives include 1) development of a simple model of atmospheric dynamics based on interaction of planetary waves with zonal flows in the stratosphere 2) investigation of different types of forcing of this dynamics 3) comparison results of modeling with observations and General Circulation Models To accomplish these objectives we will use numerical modeling and data analysis. This proposal addresses one of the main goals of the Living With a Star Program and this AO of "improving our understanding of the effects of solar variability and disturbances on terrestrial climate change" by modeling solar influences on climate. The results can be used for the formulating science objectives for possible future missions.

Publication References:

no references