

Venus Atmospheric Circulation: What we know and what we hope to learn

1 S. Limaye

Space Science and Engineering Center, University of Wisconsin, Madison, WI, USA
(SanjayL@ssec.wisc.edu)

The arrival of Venus Express in April is anticipated as it has the potential to improve our knowledge of the atmospheric circulation of Venus not just at the cloud level, but in the deep atmosphere by observing the atmosphere at wavelengths ranging from UV to near infrared. Recently a renewed effort in observing Venus from earth based telescopes, particularly coordinated runs from multiple observatories around the world have yielded information about the zonal flow at about 53 km level from 2.3 micron level. These observations with improved spatial resolution, show that the observed features are very dynamic and show a large degree of changes over short periods, indicating changes in the cloud opacities as well as in the spatial structures. With better coverage from orbit, Venus Express instruments will enable us to observe more systematically such changes, and their interaction with the large scale atmospheric flow.