

**DENVER MUSEUM OF NATURE AND SCIENCE
VENUS WINDS PROJECT
MEETING AGENDA**

Date/Time/Location 30 Aug 2016, 6:00 PM

Exploration Studio 102

Telescope Night! The Moon is new and the forecast is reasonable. We will start setting up telescopes on the lawn outside the Museum at around sunset, 7:34 pm. I will bring my 8" Meade Schmidt Cassegrain. Please feel free to bring your own telescope or binoculars, too!

AGENDA ITEMS CARRIED FORWARD

Image Processing Results—All

We will show new results on image-centering efforts, for those that have some, and then summarize the remaining steps for calculating wind velocities, using our process block diagram.

Reading Assignment – Mark

Mark will go over some of the most important points in *The New Solar System* chapter that relate to our project. Bring questions, as this chapter discussed the basic physics of planetary atmospheres.

Akatsuki Update – Mark

The *Akatsuki* mission is beginning to archive many of its 2 micron images (similar to our IRTF images). Mark will talk about what has been learned so far and some surprising features in these new images.

NEW AGENDA ITEMS SINCE LAST MEETING

Google Groups – Mark, Dave, BG

Mark will show what he has uploaded to the new Google Groups page that Dave set up for the project. BG will give us a short tutorial on using Google Groups as a collaborative tool.

Image Digital Filtering – Mark

Mark will briefly discuss a mathematical technique that can be used to remove the 'row noise' that we see in all the images.

Removing Scattered Sunlight from the Images – Mark, Art

Venus' night side clouds that are closest to the terminator in our 2.3 micron images are washed out because of sunlight scattered from the bright day side crescent to the night side. This part of the image can be enhanced by mathematically subtracting an image of Venus taken at another wavelength. We will discuss the subtraction of images taken with a Bracket-gamma filter (2.16 microns) from the 2.3 micron images to improve cloud contrast near the terminator.