

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

Date/Time/Location 4 Dec 2014, 6:00 PM Exploration Studio 106

AGENDA ITEMS CARRIED FORWARD

Your results and experience All researchers

Earlier Mark released nine images from the 20040712 dataset. Researchers were to choose the same nine tracking points on each image and record their coordinates on a spreadsheet. If possible, velocity components $U(x)$ and $V(y)$ should be computed. *Any researcher who has completed this exercise but not already reported results should bring the spreadsheet.*

New velocity measurement exercise: 14 Dec 2010 All researchers

New data from the **14 Dec 2010** image dataset has been made available. Mark has prepared two DropBox folders that contain 1,589 images in FITS format and JPEG format, respectively. Report on your results and experience. Bring nine favorite images, approximately equally spaced in time. We are looking here for the sharpest images – the orientation of Venus doesn't matter, since all 9 images will be co-registered in the next assignment.

Individual sub-group task reports

Sub-group *Slit Removal* (Proposer: Dylan)

Dylan described his plan to remove the slit artifact from the images. Mark discussed his own experiments in doing the same task. If automated, the slit removal feature would measurably improve the quality of the images for analysis.

Sub-group *Improved Online Tools* (Proposer: Ricardo)

Ricardo and an associate have been improving the coordinate recording tool that Ricardo demonstrated at an earlier meeting (November 6). The tool is available for testing at <http://venuswindsproject.org/>. Report your experience and any problems to Ricardo.

Ricardo also suggested an improved method of rapidly examining a series of images for a specific dataset. Discussion followed regarding temporary data storage while the wiki is being restored. This has been accomplished with the release of the two DropBox folders. Additional discussion may be required. *Ricardo won't be at the Dec 4, 2014, since he won a trip to watch the launch of Orion in Florida!*

Sub-group *Plotting Rotation Curves* (Proposer: Christy)

Christy has agreed to calculate velocity vs. latitude speeds for a solid sphere rotator. She will plot the velocities of points at several latitudes on the surface of a sphere. There will be one curve for an equatorial velocity of 50 m/s, one for an equatorial velocity of 75 m/s, and one for an equatorial velocity of 100 m/s. *Christy will also be attending the Orion launch in Florida, so she won't be at the meeting either!*

NEW AGENDA ITEMS SINCE LAST MEETING

Follow up test on 20040712 All researchers

Mark will hand out the first image of 20040712 with nine points marked and annotated with x,y values. These points will be tracked on the eight subsequent images. This exercise is to eliminate variability due to initial selection of tracking points

Co-Registration of Images Art and Mark

Art will give a brief tutorial on co-registering images using Photoshop. Mark will extend the discussion to performing the same tasks in GIMP.