Cloud Academy Activity Preparation Guide

Drs. Christiane Helling and Mark Marley:

Dear Cloud Academy Participants,

For the planet albedo exercise on Tuesday please download and install the code (v0.9) we will be using from here

https://github.com/natashabatalha/CloudAcademyAlbedo

We are still working to finalize this material and you will need to do a refresh late next week, but most of this will not change. We are distributing now so that you can have time to get the code installed and running on your laptop.

The code computes the albedo spectrum of a planet with a specified T(P) and cloud profile. For our exercise in Les Houches we will be using various profiles computed by Christianne Helling's cloud model for a particular planet.

The albedo code we are distributing is based on that developed by Marley & McKay (1999) and Cahoy et al. (2010). The Cloud Academy version was developed by Natasha Batalha based on the earlier codes. Numerous modifications have been made to this code to prepare it for eventual public release and the code *has not yet been fully tested* to verify that this version works perfectly in all circumstances. So please DO NOT use this version for actual science as we can not yet stand behind the output. The eventual public release of the code later this year will first be appropriately tested. This version, however, behaves well enough for the purposes of the exercise at Cloud Academy.

If you run into installation problems please Google the error message you are running in to. If you still can't solve the problem please ask a friend or someone else at your institution. If you still have problems then, as a last resort, contact Natasha at natasha.e.batalha@gmail.com. Please note that Natasha prepared this version as a community service and she is not being supported in any way in relation to Cloud Academy. Several of the students attending the school do have experience with this code (but not the new python wrapper) and can also help.

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Best,

Mark Marley

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Dr. Tony del Genio:

For this activity, please download the following two files (also linked from the Cloud Academy website):

Bond albedo gallery for Activity Planet Cases

In addition, we suggest that you bookmark now the following link, as it will be a useful resource for the activity:

https://data.giss.nasa.gov/rocke3d/maps/