Questions and Answers

The Formation of Stars and Planetary Systems, 2010, September 6-9, Särö, Sweden

Section & Talk by ..... C. Dominik .....

Name/Question ..... N. Calvet .....

With the thermostat effect due to viscosity, the disk behind the wall has similar scale height as the rim, so the rim is not expected to puff off. Do you agree?

Name/Answer ..... C. Dominik .....

I agree that this should be so if accretional heating is in fact the dominant heat source at the location of the rim. ~~If this is so~~ It will depend on the accretion rate if this is so.

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Section & Talk by C. Dominik

Name/Question D. Ardila

How can one get around the fact that large grains are observed far out in the disk, but models predict they should be transported inward? Does the presence of magnetic fields change the characteristics of grain transport?

Name/Answer C. Dominik

This problem is still unsolved. Magnetic field are not expected to play an important role as grains in the disk midplane will only be weakly charged.

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Section & Talk by C. Dominik

Name/Question A. Johansen

You mentioned that icy grains may coagulate more efficiently and thus sediment to the mid-plane faster. Are there any reasons to believe this may indeed be the case?

Name/Answer C. Dominik

Icy grains do stick better than say silicate grains due to the polar nature of the material.

In an environment where collision velocities are high, close to the fragmentation limit of aggregates, icy grains will in fact be preferred as aggregate constituents.

over bare silicate grains

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Section & Talk by 3 Carsten Dominik

Name/Question James DiFrancesco

In your talk, you described how disks expand through viscous spreading but also how grains drift radially inward as well. Wouldn't these forces counteract each other and affect the radial evolution of the disk? (If the gas & dust do different rate radially could that explain why CO disks are larger than dust continuum ones?)

Name/Answer C. Dominik

In α-disk models, there is always a net flux inwards at each point. Some more detailed models show outward flowing streamers, and these can indeed transport limited amounts of material. But this is not sufficient to counter the overall inward motion, let alone the fast radial drift.