Thursday, March 24, 2016
COSMOCHEMICAL ORIGINS: DISK EVOLUTION
3:30 p.m. Montgomery Ballroom

Chairs: Jeffrey Cuzzi
Alessandro Morbidelli

3:30 p.m. Morbidelli A. * Bitsch B. Crida A. Gounelle M. Guillot T. et al.
A Fossilized Snowline in the Solar System Protoplanetary Disk [#1116]
The formation of proto-Jupiter intercepted the radial flow of ice grains. Thus inner solar system bodies remained dry even when the temperature later dropped.

3:45 p.m. Krijt S. Ciesla F. J. *
Tracing Solids and Vapor During Particle Growth: Communication Between the Midplane and Surface Layers of a Protoplanetary Disk [#2020]
Dust and gas move / Between midplane and surface / Does dust growth limit?

4:00 p.m. Estrada P. R. * Cuzzi J. N.
Fractal Growth and Radial Migration of Solids: The Role of Porosity and Compaction in an Evolving Nebula [#2854]
Outside the snow line / Particles grow fractally / My don’t they drift slow.

4:15 p.m. Cuzzi J. N. * Hartlep T. Estrada P. R.
Planetesimal Initial Mass Functions and Creation Rates Under Turbulent Concentration Using Scale-Dependent Cascades [#2661]
After allowing for the new scale dependence of turbulent concentration, forming large planetesimals requires dm-radius aggregates rather than single chondrules.

4:30 p.m. Fischer R. A. * Nimmo F. O’Brien D. P.
Radial Mixing Under Different Accretion Scenarios: Observational Constraints [#2454]
Different accretion scenarios imply different feeding zones for planets, which can be seen in K/U ratios and Ru-Mo isotopes.

4:45 p.m. Carballido A. * Matthews L. S. Hyde T. H.
Dust Relative Velocities in the Vicinity of a Gap-Opening Jupiter-Mass Planet [#2855]
We calculate collision speeds of dust grains in the solar nebular, in which a gap has been opened by Jupiter. Speed values are highest inside the gap.