

Public release date: 8-Jul-2010

Contact: Kristin Elise Phillips, American Museum of Natural History  
kphillips@amnh.org  
212-496-3419  
212-496-3419

# **New York goes extra-terrestrial as meteorite experts descend on the city in July**

## **73rd annual meeting of the Meteoritical Society July 26-30**

How old is our solar system? Where do the organic molecules found in extraterrestrial materials come from, and how does a planet become habitable? And how often do large meteoroids—the dust particles to boulder-size debris in the solar system—hit planets like Earth?

These are some of the topics that will be discussed at the largest gathering of the Meteoritical Society, the international organization for meteoritics and planetary science, in its nearly 80-year history. More than 500 experts from all over the world will convene for five days of presentations and poster sessions at the Park Central Hotel in New York City beginning July 26.

A pre-conference workshop linking theoretical simulations of the physical development of proto-planetary disks to observations of far-away disks and to evidence found in extraterrestrial rocks will be held at the American Museum of Natural History. The conference reception will be held in the Museum's Arthur Ross Hall of Meteorites.

The American Museum of Natural History hosts the conference's Barringer Invitational Lecture. This year's speaker is Sean Solomon, the principle investigator of the MESSENGER mission. Solomon will present new discoveries this spacecraft has already made, and will find when in orbit around Mercury, the puzzlingly high-density innermost planet. This program, which is free and open to the public, will take place on the evening of July 26.

"After many decades of great science, the international members of the Society are looking forward to coming to New York for the second time to hear about interesting new research and discoveries in extraterrestrial materials," says Hiroko Nagahara, professor at the University of Tokyo and president of the Meteoritical Society. "I am also looking forward to awarding the highest honors from our Society."

Among the awards presented this year is the prestigious Leonard medal which will go to Hiroshi Takeda of Japan's Chiba University for his analysis of meteorites as pieces of Mars.

"It's wonderful that so many international scientists can come to New York to share their research and discoveries," says Denton Ebel, curator in the Department of Earth and Planetary

Sciences at the American Museum of Natural History and chair of the Meteoritical Society's Local Organizing Committee. "The city provides the perfect cosmopolitan environment to stimulate discussion, collaboration, and new ideas."

Vice-chairs of the conference's Local Organizing Committee are Michael Weisberg and Harold Connolly of City University of New York. Jon Friedrich of Fordham University chairs the Scientific Organizing Committee.

The Meteoritical Society is an academic organization founded in 1933 to promote the study of extraterrestrial materials. This year, for its 73rd annual meeting, interesting symposium topics and some representative papers include:

- The age of the solar system and of Earth: Arizona State University's Audrey Bouvier and colleagues will present evidence from calcium-aluminum-rich inclusions in the Vigarano meteorite of a solar system age of 4569.3 million years.
- The problem of the missing mantles of iron meteorites: University of Hawaii's Edward Scott and colleagues will present a radical new explanation: that iron meteorites form when two protoplanets graze each other during a collision.
- The information meteorites yield about asteroids and comets: Johns Hopkins University's Andrew Rivkin will present observations of ice on main belt asteroids.
- The rate at which large meteoroids hit Earth: Southwest Research Institute's Clark Chapman and colleagues will look at new information from MESSENGER "flybys" about impact craters on Mercury.
- The origin of the organic matter found in extraterrestrial material: Carnegie Institution's Conel Alexander and colleagues have determined that the water found in chondrites (stony meteorites that have not melted since their formation) is not from ice at the outer reaches of the solar system.
- The development of habitable planets: University of Chicago's Fred Ciesla will present a new technique for calculating the transport and chemical evolution of water ice in pre-planetary disks.

The 73rd annual meeting of the Meteoritical Society will take place at the Park Central Hotel on 7th Avenue at 56th Street in Manhattan starting at 8:30am on Monday, July 26. Symposium sessions generally run until 5 pm, and two poster sessions will be held on the evenings of June 27 and 29. For the full list of papers and presentations, visit [www.lpi.usra.edu/meetings/metsoc2010](http://www.lpi.usra.edu/meetings/metsoc2010).

The Barringer Invitational Lecture on MESSENGER and Mercury by Sean Solomon will be held at 7 pm on June 26 at the American Museum of Natural History. The event is free, although you can reserve tickets by calling 212-769-5200. Please enter by the 77th Street entrance between Central Park West and Columbus Avenue.

###