

2000 DPS Prize Recipients

Conway B. Leovy, 2000 [Gerard P. Kuiper Prize](#) [1] Recipient

Conway B. Leovy, Emeritus Professor of Atmospheric Sciences and Geophysics, University of Washington in Seattle, has been awarded the Year 2000 Gerard P. Kuiper Prize by the Division for Planetary Sciences (DPS) of the American Astronomical Society. The award is given in recognition of Professor Leovy's outstanding achievements in defining and advancing comparative studies of the structure and circulation of planetary atmospheres, their radiative and dynamic processes, and their interactions with the solid surfaces. The Kuiper Prize is awarded annually by the DPS to a scientist whose achievements have most advanced our understanding of the planetary system. The DPS, with a membership of about 1200, is the nation's largest organization of professional scientists devoted to exploring the planets and other bodies of the solar system.

Prof. Leovy's contributions to our present understanding of planetary atmospheres span more than thirty-five years, thirty of which were spent on the faculty of the University of Washington. He received his BA in physics and mathematics from the University of Southern California in 1954 and his PhD in Meteorology from MIT in 1963. Before joining the faculty of the University of Washington, he worked as a research meteorologist at Rand Corporation in Santa Monica, CA, where he made major contributions to our understanding of the chemistry and dynamics of Earth's atmosphere. From Earth, he expanded his atmospheric studies first to Mars, then to Venus and Jupiter. Whether he was studying Earth or another planet, Prof. Leovy has always taken a multi-disciplinary, integrated system perspective. In the case of Mars, for example, he has studied the geology of the surface to search for evidence for climate change on the planet.

Richard Zurek, Manager of Jet Propulsion Laboratory's Earth and Space Sciences Division and one of many of Prof. Leovy's former students who have gone on to distinguished careers in planetary science, rightly emphasizes the breadth of the view that his former professor has brought to the comparative studies of planetary atmospheres. That view encompasses theory, multi-disciplinary data analysis, multi-planet research, program strategy development, and participation in mission planning and execution. One must suppose that the great success of his endeavors, perfectly timed to contribute to this era of spacecraft exploration of the planets, has been uniquely satisfying to Leovy. His ever-modest demeanor well conceals any such self-satisfaction. He remains an example of a scientist whom we would wish to be the stereotype—brilliantly insightful, enthusiastic and lucid in his communications, supportive of his students and his colleagues, and socially aware.

The Kuiper Prize was established in 1984, and is named in honor of the late Gerard P. Kuiper of the University of Arizona, who played a leading role in astronomical observations of solar system objects and in NASA's lunar exploration program.

Alessandro Morbidelli, 2000 [Harold C. Urey Prize](#) [2] recipient

Dr. Alessandro Morbidelli of the Observatoire de la Côte d'Azur in Nice, France, has been awarded the Year 2000 Harold C. Urey Prize by the Division for Planetary Sciences (DPS) of the American Astronomical Society in recognition of his outstanding accomplishments in studies of solar system dynamics. His work includes modeling the delivery of meteorites to the Earth, formation and evolution of the Kirkwood gaps in the asteroid belt, studies of asteroid families, and the structure of the Kuiper belt of comets. The Urey prize is bestowed annually by the DPS to recognize and encourage outstanding achievement in planetary research by a young scientist. The DPS, with a membership of about 1200, is the nation's largest organization of professional scientists devoted to exploring the planets and other

bodies of the solar system.

Dr. Morbidelli, born in Italy in 1966, received his Master's degree in physics from the University of Milan (Italy) in 1988 and his PhD in mathematics from the University of Namur (Belgium) in 1991. Since 1993, he has worked as an astronomer at the Nice Observatory in southern France. He began his career working on the theory of Hamiltonian systems, applying it to the dynamics of small bodies in the solar system. He has developed a theory on the secular evolution of asteroids—both inside and outside the main mean motion resonances with Jupiter—which helps to explain the origin of Sun-grazing near-Earth asteroids (NEAs). He was also the first to analytically investigate the dynamic structure of the Kuiper belt.

By means of numerical integrations, Dr. Morbidelli characterized the properties of the chaotic evolution of asteroids that escape from the main belt; he succeeded in showing that typical dynamic lifetimes of such asteroids are an order of magnitude shorter than previously thought. His studies also revealed that mean motion resonances with Mars and three-body resonances with the outer planets are important in delivering asteroids to near-Earth space. He is presently working on modeling the unbiased distribution of NEAs and on scenarios for the primordial depletion and dynamic excitation of the asteroid belt and the Kuiper belt. His work has done much to extend our understanding of the evolution of these belts.

The Urey Prize was established in 1984, and is named in honor of the late Harold C. Urey of the University of California at San Diego. Dr. Urey was a Nobel Laureate in chemistry and a pioneer in the study of geochemical processes in the solar system.

Larry A. Lebofsky, 2000 [Carl Sagan Medal](#) [3] recipient

The year 2000 Carl Sagan Medal for Excellence in Public Communications in Planetary Science is awarded to Dr. Larry A. Lebofsky of the University of Arizona in Tucson, Arizona. The Carl Sagan Medal is bestowed annually by the Division for Planetary Sciences (DPS) of the American Astronomical Society to recognize and honor outstanding communication by an active planetary scientist to the general public. The DPS, with a membership of about 1200, is the nation's largest organization of professional scientists solely devoted to exploring the planets and other bodies of the solar system.

Dr. Lebofsky has a long history of dedication to education and public outreach about a wide range of planetary science topics. His outreach activities engage many audiences at various levels of interest. He has helped produce classroom activities that span kindergarten through high school and beyond. He has worked to reach the adult population through public lectures and community science courses on the solar system. In 1990, he initiated a program known as Project ARTIST (Astronomy-Related Teacher In-Service Training) to educate elementary and secondary teachers in astronomy. To date, he is responsible for the training of over 4000 teachers with hands-on demonstration experiments related to solar system science.

Dr. Lebofsky was awarded a Bachelor of Science in Astronomy in 1969 by the California Institute of Technology, Pasadena, California. He received his Ph.D. in Earth and Planetary Sciences in 1974 from the Massachusetts Institute of Technology, Cambridge, Massachusetts. After working at the NASA Jet Propulsion Laboratory for two years as a National Research Council Resident Research Associate, he began working for the Lunar and Planetary Laboratory (LPL) at the University of Arizona in 1977. He has been associated with LPL continuously since that time. Dr. Lebofsky's scientific research areas include studies of planetary surfaces, composition of asteroids and satellites, visible and infrared observations of asteroids and satellites, and laboratory studies of frosts and minerals. Asteroid 3439 Lebofsky was named in his honor. He is a member of many professional societies, including the DPS, the International Astronomical Union, the Astronomical Society of the Pacific, the Meteoritical Society, the American Geophysical Union, Sigma Xi, the National Science Teachers Association, the Association for the Education of Teachers in Science, The Association of Astronomy Educators, the Council for Elementary Science International, the American Institute for Aeronautics and Astronautics, and the International

Dark Sky Association. Dr. Lebofsky has also served on many NASA and professional committees that promote planetary science education. He is Education Director for the San Juan Institute/Planetary Science Institute and the President-elect of the Arizona Science Teachers Association. Since 1997 he has served as the DPS Education Officer.

The Carl Sagan Medal for Excellence in Public Communication in Planetary Science, established in 1997 by the DPS and presented at its annual meeting, is named in honor of the late Carl Sagan of Cornell University, an outstanding scientist who, through public lectures, TV series, and books, significantly contributed to a public understanding of and enthusiasm for planetary science.

Congressman George E. Brown Jr., 2000 [Harold Masursky Award](#) [4] recipient

The year 2000 Harold Masursky Meritorious Service Award of the Division for Planetary Sciences (DPS) of the American Astronomical Society is posthumously awarded to former Congressman George E. Brown, Jr., who died July 15, 1999. The Masursky Award is bestowed annually by the DPS to recognize outstanding service to the field of planetary sciences. Congressman Brown has been selected for the year 2000 award in recognition of his accomplishments as a champion for planetary science and exploration.

The DPS, with more than 1000 members, is the nation's largest organization of professional scientists solely devoted to exploring the planets and other bodies of the solar system.

Congressman Brown, whose California district is close to NASA's Jet Propulsion Laboratory (JPL), was first elected to the House of Representatives in 1962 and had been a member of its Science Committee since 1965. He was unique among the members of Congress in his resolve and steadfastness in support of scientific research. Throughout his career, Congressman Brown enthusiastically supported both manned and unmanned space exploration. He was instrumental in turning around several threats to cancel the Cassini-Huygens Mission to Saturn and consistently fought to keep NASA research line items in the federal budget.

DPS Chairman Robert M. Nelson notes that, "One of the principal reasons that the scientific community held George Brown in such high regard was due to his strong support for scientific research receiving federal support on the basis of peer review from the scientific community. Brown was a strong opponent of 'earmarking' by Congress, a process wherein individual congressmen trade favors in exchange for technical projects being funded within their own congressional districts. Brown recognized that excellence in science requires peer review from scientists worldwide rather than from a few special-interest individuals in a particular region."

In the mid-1960s, and again in 1979, Congressman Brown led an effort to restructure and strengthen the National Science Foundation in the changing science and technology environment of those decades. He was an active participant in shaping the permanent science advisory mechanism in the Executive Office of the President, which was established in 1976 as the Office of Science and Technology Policy.

Congressman Brown also was a valued proponent of opportunities to use space for the benefit of mankind, a central goal of the 1958 National Space Act. His genuine enthusiasm for planetary exploration and the nation's children led him to inspire students to dream of their own futures as the next generation of planetary explorers. Through live broadcasts, astronaut visits, and space-related math and science education initiatives, he brought the excitement of space exploration directly to the classroom.

The Meritorious Service Award, established by the DPS in 1991, is named in honor of the late Harold Masursky of the U. S. Geological Survey, an outstanding scientist who was a leader in establishing and



accomplishing scientific objectives in both U. S. and international programs for planetary exploration.

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