

Citation for the 2018 RAS Harold Jeffreys Lecturer Professor: Dr Alessandro Morbidelli

The 2018 RAS Harold Jeffreys Lecture is awarded to Dr Alessandro Morbidelli.

Dr Alessandro Morbidelli is one of the world's foremost experts on solar system dynamics. A staff astronomer at the Observatoire de la Côte d'Azur in Nice, France, his research has encompassed a wide range of topics in the formation and evolution of planets, asteroids, the Kuiper Belt, and extrasolar planets. Together with colleagues, in 2005 Morbidelli published a series of papers outlining a model for the evolution of the early Solar System based on orbital migration of the giant planets. Now known as the Nice model, it explains a number of otherwise-puzzling properties of the Solar System, such as the low mass of the Kuiper Belt and the occurrence of the Late Heavy Bombardment.

Dr Morbidelli's research interests extend beyond Solar System evolution into several related fields, such as the distribution of bodies in the asteroid belt; the elemental and isotopic abundances of planets, asteroids and comets; their internal structures; the dynamical stability of extrasolar planetary systems; and accretion in protoplanetary discs. He is also an active leader of the planetary science community, serving as an editor of the journal *Icarus*, the Director of the French National Programme for Planetary Science, and is former president of IAU Commission 7 (Celestial Mechanics & Dynamical Astronomy).

An accomplished public speaker, Morbidelli has a talent for explaining complex issues in an engaging and accessible way, relating cutting-edge research in a clear and engaging manner.

For these reasons, Dr Morbidelli is awarded the position of the Royal Astronomical Society's Harold Jeffreys Lecturer.