

2022 Brouwer Award Winner - Harold (Hal) Levison

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The American Astronomical Society's Division on Dynamical Astronomy (DDA) is pleased to announce that the 2022 Dirk Brouwer Career Award is given to [Dr. Harold \(Hal\) F. Levison](#) [1] (Southwest Research Institute, Boulder, CO) to recognize and celebrate his outstanding contributions to the field of planetary dynamics.

Dr. Levison is well known for his longstanding, important work on the dynamical evolution of small bodies in the solar system. Early in his career, he developed the popular Swift planetary integrator. This numerical tool permits users to simulate accurately and efficiently the evolution of a planetary system. It is one of the pioneering works in the field, and the current ubiquity of such integrators illustrates his forward-thinking ability.

Dr. Levison is also well-known for being a key contributor of the “Nice model.” This model of early evolution of the Solar System established a leading paradigm for the early dynamical evolution of the outer solar system, with implications for populations of minor bodies throughout the solar system. In particular, the model predicts dynamical capture of small bodies into orbits near Jupiter’s L4 and L5 Lagrange points. In an unusual move for a theorist, Dr. Levison led the successful proposal of a spacecraft mission to test the model’s predictions. He is PI of the Lucy mission currently en route to the Trojan asteroids of Jupiter. Dr. Levison’s dedication to every aspect of this mission, including technical ones, permitted to launch it on schedule despite the Covid pandemic.

In addition to his own research, Dr. Levison has mentored many young scientists and helped



rejuvenate the DDA, at which he is a long-term attendee.

Dr. Levison earned his PhD in Astronomy from the University of Michigan in 1986. After completing postdoctoral work at NASA Ames Research Center, he spent several years at the U.S. Naval Observatory. He moved to Southwest Research Institute in 1992, where he is now a Chief Scientist/Program Director in the Department of Space Studies.

Dr. Levison will be invited to give a lecture at the 54th annual DDA meeting in the spring of 2023.

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