FOR IMMEDIATE RELEASE

Contact: Alex Vrenios, PAS Secretary
Email: Secretary@PASAZ.org

Date: March 3, 2022

Astronomy Fans: YOU Are Invited to a Free Lecture!

Phoenix, AZ – The Phoenix Astronomical Society PASAZ.ORG is proud to announce that Dr. Renu Malhotra will be our guest lecturer March 3, 2022, during our 7:00 p.m. ZOOM meeting. Please join us via the following Zoom link:

https://us02web.zoom.us/j/88905330174?pwd=N3V2THhpdzdrM1pJQTVGUjc5eDhZQT09

Dr. Malhotra's lecture is titled ***"Migratory Planets and Chaos in the Young Solar System."*** Our understanding of the Solar system has undergone a revolution in recent decades, owing to new observational discoveries and new theoretical insights into its rich dynamical structure. The emerging picture is one of dramatic orbital migration of the giant planets in the early history of the Solar system, driven by interaction with the primordial Kuiper belt, which produced the Solar system architecture that we live in today. The evidence is all over the Solar system, as close as the Moon and as far away as Pluto and the Kuiper belt. While this evidence is compelling, there is also tension with the observed properties of the inner solar system: the migration of the giant planets should have caused severe, potentially destabilizing, perturbations on the terrestrial planets' orbits. She will describe these developments and some ideas under debate about how our solar system's architecture came to be.

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Dr. Renu Malhotra is Louise Foucar Marshall Science Research Professor and Regents Professor of Planetary Sciences at The University of Arizona in Tucson, where she directed the Theoretical Astrophysics Program during 2011-2016. She was born in New Delhi and grew up in Hyderabad, India. She earned her M.S. in Physics from the Indian Institute of Technology in Delhi in 1983, and her Ph.D. in Physics from Cornell University in 1988. She did post-doctoral research at Cornell and at Caltech, and worked as a staff scientist at the Lunar and Planetary Institute in Houston. Her work in planetary dynamics has spanned a wide variety of topics, including extra-solar planets and debris disks around nearby stars, the formation and evolution of the Kuiper belt and the asteroid belt, the orbital resonances amongst the moons of the giant planets, and the meteoritic bombardment history of the planets. She has revolutionized our understanding of the history of the solar system by using the orbital resonance between Pluto and Neptune to infer large-scale orbital migration of the giant planets and to predict the existence of the "Plutinos" and other small planets in resonance with Neptune. She is an elected member of the National Academy of Sciences and of the American Academy of Arts and Sciences, and has been the recipient of honors and awards from the American Astronomical Society, the International Astronomical Union, the Harvard-Smithsonian Astrophysical Observatory, Cornell University, The University of Arizona, and the IIT-Delhi.

This lecture is open to the public, so please tell a friend!

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