

## RENU MALHOTRA

Regents Professor and Louise Foucar Marshall Science Research Professor  
Lunar and Planetary Laboratory, The University of Arizona, Tucson, AZ

### EDUCATION

Ph.D. 1988, Physics, Cornell University, Ithaca, NY.

M.S. 1983, Physics, Indian Institute of Technology, Delhi, India.

### HONORS

Elected Member of National Academy of Sciences, 2015; Elected Fellow of American Academy of Arts and Sciences, 2015; Lecar Prize Harvard-Smithsonian Center for Astrophysics, 2018; Thomas Gold Lecturer, Cornell University, 2018; Appointed Regents Professor in the Arizona state university system, 2016; Appointed Louise Foucar Marshall Science Research Professor, 2016; Galileo Circle Fellow, The University of Arizona, 2010; Distinguished Alumnus, Indian Institute of Technology, Delhi, India, 2006; Kavli Frontiers of Science Fellow, National Academy of Sciences, 2000; Harold C. Urey Prize, American Astronomical Society–Division for Planetary Sciences, 1997; Asteroid 6698 named “Malhotra”, International Astronomical Union, 1997; President’s Gold Medal for Physics, IIT-Delhi, 1983.

### TEACHING & MENTORING

600+ students in undergraduate and graduate classes

*Postdocs and other Scholars:* Dr. Kathryn Volk 2015–, Dr. Tatiana Michtchenko 2004–2005, Dr. Takashi Ito 2002–2004, 2006, S. Kortenkamp 2001–2003, J.M. Hahn 1997–2000

*PhD Dissertations:* Ian Matheson 2020–; Jose Daniel Castro-Cisneros 2021– Youngmin Jeongahn 2015; Kathryn Volk 2013; David A. Minton 2009; Amaya Moro-Martin 2004; Matthew Tiscareno 2004.

### PROFESSIONAL SERVICE

Chair of the Council of Institutions and Member of the Board of Trustees of Universities Space Research Association, (2020–2022); Director of Theoretical Astrophysics Program–University of Arizona, 2011–2016; + numerous university, national and international academic and research committees, and outreach activities

### RESEARCH

120+ peer-reviewed publications, 120+ invited professional presentations.

#### Selected Recent Publications

Castro-Cisneros, J.D., Malhotra, R., Rosengren, A.J., Orbital pathways for a Lunar-Ejecta Origin of the Near-Earth Asteroid Kamo‘oalewa, *Communications Earth & Environment*, 4:372 (2023)

Malhotra, R., Chen, Z., Non-perturbative investigation of low eccentricity exterior mean motion resonances, *MNRAS*, 521(1), 1253–1263 (2023)

Malhotra, R., Ito, T., Pluto on the Edge of Chaos, *PNAS*, 119(15) e2118692119 (2022)

Reiland, N., Rosengren, A., Malhotra, R., Bombardelli, C., Assessing and Minimizing Collisions in Satellite Mega-Constellations, *Advances in Space Research*, 67(11):3755–3774 (2021)

Petrovich, C., Diego, J.M., Kratter, K.M., Malhotra, R., A disk-driven resonance as the origin of high inclinations of close-in planets, *ApJ Letters*, 902, id. L5 (2020)