

Renu Malhotra

List of Publications by Year in descending order

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93
papers

6,977
citations

57758

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96
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docs citations

96
times ranked

3538
citing authors

#	ARTICLE	IF	CITATIONS
1	An Integrative Analysis of the HD 219134 Planetary System and the Inner solar system: Extending DYNAMITE with Enhanced Orbital Dynamical Stability Criteria. <i>Astronomical Journal</i> , 2022, 163, 88.	4.7	3
2	Pluto near the edge of chaos. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2118692119.	7.1	4
3	Assessing and minimizing collisions in satellite mega-constellations. <i>Advances in Space Research</i> , 2021, 67, 3755-3774.	2.6	16
4	Refining the Transit-timing and Photometric Analysis of TRAPPIST-1: Masses, Radii, Densities, Dynamics, and Ephemerides. <i>Planetary Science Journal</i> , 2021, 2, 1.	3.6	161
5	Pluto's Resonant Orbit Visualized in 4D. <i>Research Notes of the AAS</i> , 2021, 5, 235.	0.7	1
6	Lunar-like silicate material forms the Earth quasi-satellite (469219) 2016 HO3 Kamo'oalewa. <i>Communications Earth & Environment</i> , 2021, 2, .	6.8	9
7	New results on orbital resonances. <i>Proceedings of the International Astronomical Union</i> , 2021, 15, 85-101.	0.0	1
8	Lunar close encounters compete with the circumterrestrial Lidov-Kozai effect. <i>Celestial Mechanics and Dynamical Astronomy</i> , 2020, 132, 1.	1.4	3
9	On the divergence of first-order resonance widths at low eccentricities. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 496, 3152-3160.	4.4	9
10	The Evolution of Dust Disk Sizes from a Homogeneous Analysis of 10 Myr old Stars. <i>Astrophysical Journal</i> , 2020, 895, 126.	4.5	57
11	Search for L5 Earth Trojans with DECam. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 492, 6105-6119.	4.4	17
12	Dynamical Instabilities in Systems of Multiple Short-period Planets Are Likely Driven by Secular Chaos: A Case Study of Kepler-102. <i>Astronomical Journal</i> , 2020, 160, 98.	4.7	18
13	A Disk-driven Resonance as the Origin of High Inclinations of Close-in Planets. <i>Astrophysical Journal Letters</i> , 2020, 902, L5.	8.3	30
14	Observational Completion Limit of Minor Planets from the Asteroid Belt to Jupiter Trojans. <i>Planetary Science Journal</i> , 2020, 1, 75.	3.6	11
15	Neptune's resonances in the scattered disk. <i>Celestial Mechanics and Dynamical Astronomy</i> , 2019, 131, 1.	1.4	25
16	Not a Simple Relationship between Neptune's Migration Speed and Kuiper Belt Inclination Excitation. <i>Astronomical Journal</i> , 2019, 158, 64.	4.7	24
17	Extreme Debris Disk Variability: Exploring the Diverse Outcomes of Large Asteroid Impacts During the Era of Terrestrial Planet Formation. <i>Astronomical Journal</i> , 2019, 157, 202.	4.7	23
18	Resonant Kuiper belt objects: a review. <i>Geoscience Letters</i> , 2019, 6, 12.	3.3	19

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19	The Mid-plane of the Main Asteroid Belt. <i>Astronomical Journal</i> , 2018, 155, 143.	4.7	6
20	On the Detectability of Planet X with LSST. <i>Astronomical Journal</i> , 2018, 155, 243.	4.7	4
21	Neptune's 5:2 Resonance in the Kuiper Belt. <i>Astronomical Journal</i> , 2018, 156, 55.	4.7	26
22	Simplified Derivation of the Collision Probability of Two Objects in Independent Keplerian Orbits. <i>Astronomical Journal</i> , 2017, 153, 235.	4.7	14
23	The Curiously Warped Mean Plane of the Kuiper Belt. <i>Astronomical Journal</i> , 2017, 154, 62.	4.7	45
24	Eccentricity distribution in the main asteroid belt. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 465, 4381-4389.	4.4	8
25	Mean Motion Resonances at High Eccentricities: The 2:1 and the 3:2 Interior Resonances. <i>Astronomical Journal</i> , 2017, 154, 20.	4.7	46
26	ALMA 1.3 mm Map of the HD 95086 System. <i>Astronomical Journal</i> , 2017, 154, 225.	4.7	56
27	CORRALLING A DISTANT PLANET WITH EXTREME RESONANT KUIPER BELT OBJECTS. <i>Astrophysical Journal Letters</i> , 2016, 824, L22.	8.3	72
28	Lightcurves of the Karin family asteroids. <i>Icarus</i> , 2016, 269, 15-22.	2.5	2
29	The current impact flux on Mars and its seasonal variation. <i>Icarus</i> , 2015, 262, 140-153.	2.5	28
30	PLANETARY CHAOTIC ZONE CLEARING: DESTINATIONS AND TIMESCALES. <i>Astrophysical Journal</i> , 2015, 799, 41.	4.5	58
31	DEBRIS DISTRIBUTION IN HD 95086—A YOUNG ANALOG OF HR 8799. <i>Astrophysical Journal</i> , 2015, 799, 146.	4.5	58
32	THE MASS DISTRIBUTION FUNCTION OF PLANETS. <i>Astrophysical Journal</i> , 2015, 808, 71.	4.5	36
33	The inner solar system cratering record and the evolution of impactor populations. <i>Research in Astronomy and Astrophysics</i> , 2015, 15, 407-434.	1.7	58
34	PREDICTIONS FOR SHEPHERDING PLANETS IN SCATTERED LIGHT IMAGES OF DEBRIS DISKS. <i>Astrophysical Journal</i> , 2014, 780, 65.	4.5	51
35	On the non-uniform distribution of the angular elements of near-Earth objects. <i>Icarus</i> , 2014, 229, 236-246.	2.5	16
36	Do Centaurs preserve their source inclinations?. <i>Icarus</i> , 2013, 224, 66-73.	2.5	55

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37	PLANETS NEAR MEAN-MOTION RESONANCES. <i>Astrophysical Journal</i> , 2013, 770, 24.	4.5	116
38	ASTEROID BELTS IN DEBRIS DISK TWINS: VEGA AND FOMALHAUT. <i>Astrophysical Journal</i> , 2013, 763, 118.	4.5	145
39	Chaotic Exchange of Solid Material Between Planetary Systems: Implications for Lithopanspermia. <i>Astrobiology</i> , 2012, 12, 754-774.	3.0	74
40	The effect of orbital evolution on the Haumea (2003 EL61) collisional family. <i>Icarus</i> , 2012, 221, 106-115.	2.5	21
41	INCLINATION MIXING IN THE CLASSICAL KUIPER BELT. <i>Astrophysical Journal</i> , 2011, 736, 11.	4.5	32
42	SECULAR RESONANCE SWEEPING OF THE MAIN ASTEROID BELT DURING PLANET MIGRATION. <i>Astrophysical Journal</i> , 2011, 732, 53.	4.5	90
43	Comment on "Constraints on the source of lunar cataclysm impactors" (Cuk et al., 2010, <i>Icarus</i> 207,) $T_j \approx 0.784314 \text{ rgBT} / 2.5$	2.5	9
44	Long-Term Cycling of Kozai-Lidov Cycles: Extreme Eccentricities and Inclinations Excited by a Distant Eccentric Perturber. <i>Physical Review Letters</i> , 2011, 107, 181101.	7.8	173
45	LOCATING PLANETESIMAL BELTS IN THE MULTIPLE-PLANET SYSTEMS HD 128311, HD 202206, HD 82943, AND HR 8799. <i>Astrophysical Journal</i> , 2010, 717, 1123-1139.	4.5	64
46	Dynamical erosion of the asteroid belt and implications for large impacts in the inner Solar System. <i>Icarus</i> , 2010, 207, 744-757.	2.5	144
47	CHAOTIC DIFFUSION OF RESONANT KUIPER BELT OBJECTS. <i>Astronomical Journal</i> , 2009, 138, 827-837.	4.7	48
48	A record of planet migration in the main asteroid belt. <i>Nature</i> , 2009, 457, 1109-1111.	27.8	143
49	Two dynamical classes of Centaurs. <i>Icarus</i> , 2009, 203, 155-163.	2.5	62
50	COMMISSION 7: CELESTIAL MECHANICS AND DYNAMICAL ASTRONOMY. <i>Proceedings of the International Astronomical Union</i> , 2008, 4, 12-22.	0.0	0
51	The Scattered Disk as the Source of the Jupiter Family Comets. <i>Astrophysical Journal</i> , 2008, 687, 714-725.	4.5	111
52	Prospects for the Habitability of OGLE-2006-BLG-109L. <i>Astrophysical Journal</i> , 2008, 683, L67-L70.	4.5	30
53	Are Debris Disks and Massive Planets Correlated?. <i>Astrophysical Journal</i> , 2007, 658, 1312-1321.	4.5	69
54	Assessing the Massive Young Sun Hypothesis to Solve the Warm Young Earth Puzzle. <i>Astrophysical Journal</i> , 2007, 660, 1700-1706.	4.5	49

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55	The Dust, Planetesimals, and Planets of HD 38529. <i>Astrophysical Journal</i> , 2007, 668, 1165-1173.	4.5	57
56	The Formation and Evolution of Planetary Systems: Placing Our Solar System in Context with Spitzer. <i>Publications of the Astronomical Society of the Pacific</i> , 2006, 118, 1690-1710.	3.1	80
57	SIZE DISTRIBUTION OF ASTEROIDS AND OLD TERRESTRIAL CRATERS: IMPLICATIONS FOR ASTEROIDAL DYNAMICS DURING LHB. , 2006, , 337-343.		0
58	Formation and Evolution of Planetary Systems: Upper Limits to the Gas Mass in Disks around Sun-like Stars. <i>Astrophysical Journal</i> , 2006, 651, 1177-1193.	4.5	142
59	Dynamical transport of asteroid fragments from the $1/26$ resonance. <i>Advances in Space Research</i> , 2006, 38, 817-825.	2.6	27
60	Neptune's Migration into a Stirred-Up Kuiper Belt: A Detailed Comparison of Simulations to Observations. <i>Astronomical Journal</i> , 2005, 130, 2392-2414.	4.7	177
61	Signatures of Planets in Spatially Unresolved Debris Disks. <i>Astrophysical Journal</i> , 2005, 621, 1079-1097.	4.5	29
62	Dust Outflows and Inner Gaps Generated by Massive Planets in Debris Disks. <i>Astrophysical Journal</i> , 2005, 633, 1150-1167.	4.5	36
63	Formation and Evolution of Planetary Systems: Cold Outer Disks Associated with Sun-like Stars. <i>Astrophysical Journal</i> , 2005, 632, 659-669.	4.5	56
64	The Origin of Planetary Impactors in the Inner Solar System. <i>Science</i> , 2005, 309, 1847-1850.	12.6	397
65	Photometric Observations of a Very Young Family-Member Asteroid (832) Karin. <i>Publication of the Astronomical Society of Japan</i> , 2004, 56, 1105-1113.	2.5	20
66	Survival of Trojan-type companions of Neptune during primordial planet migration. <i>Icarus</i> , 2004, 167, 347-359.	2.5	47
67	Secular dynamics of the three-body problem: application to the Ā... Andromedae planetary system. <i>Icarus</i> , 2004, 168, 237-248.	2.5	120
68	The Size Distribution of Trans-Neptunian Bodies. <i>Astronomical Journal</i> , 2004, 128, 1364-1390.	4.7	384
69	The Formation and Evolution of Planetary Systems: First Results from a Spitzer Legacy Science Program. <i>Astrophysical Journal, Supplement Series</i> , 2004, 154, 422-427.	7.7	67
70	The Dynamics of Known Centaurs. <i>Astronomical Journal</i> , 2003, 126, 3122-3131.	4.7	140
71	Dynamical Models of Kuiper Belt Dust in the Inner and Outer Solar System. <i>Astronomical Journal</i> , 2003, 125, 2255-2265.	4.7	69
72	A Study of the Dynamics of Dust from the Kuiper Belt: Spatial Distribution and Spectral Energy Distribution. <i>Astronomical Journal</i> , 2002, 124, 2305-2321.	4.7	101

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73	A Dynamical Mechanism for Establishing Apsidal Resonance. <i>Astrophysical Journal</i> , 2002, 575, L33-L36.	4.5	74
74	Observational Limits on a Distant Cold Kuiper Belt. <i>Astronomical Journal</i> , 2002, 124, 2949-2954.	4.7	57
75	The Edge of the Solar System. <i>Astrophysical Journal</i> , 2001, 549, L241-L244.	4.5	104
76	Chaos and stability of the solar system. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 12342-12343.	7.1	13
77	The Ā... Andromedae System: Models and Stability. <i>Astrophysical Journal</i> , 2000, 545, 1044-1057.	4.5	63
78	Orbital Evolution of Planets Embedded in a Planetesimal Disk. <i>Astronomical Journal</i> , 1999, 117, 3041-3053.	4.7	309
79	Chaotic planet formation. <i>Nature</i> , 1999, 402, 599-600.	27.8	6
80	The Galilean Satellites. <i>Science</i> , 1999, 286, 77-84.	12.6	141
81	Depletion of the Outer Asteroid Belt. <i>Science</i> , 1997, 275, 375-377.	12.6	51
82	Tidal Evolution into the Laplace Resonance and the Resurfacing of Ganymede. <i>Icarus</i> , 1997, 127, 93-111.	2.5	123
83	Coupled Orbital and Thermal Evolution of Ganymede. <i>Icarus</i> , 1997, 129, 367-383.	2.5	108
84	The Phase Space Structure Near Neptune Resonances in the Kuiper Belt. <i>Astronomical Journal</i> , 1996, 111, 504.	4.7	130
85	The Origin of Pluto's Orbit: Implications for the Solar System Beyond Neptune. <i>Astronomical Journal</i> , 1995, 110, 420.	4.7	505
86	A mapping method for the gravitational few-body problem with dissipation. <i>Celestial Mechanics and Dynamical Astronomy</i> , 1994, 60, 373-385.	1.4	52
87	Nonlinear resonances in the solar system. <i>Physica D: Nonlinear Phenomena</i> , 1994, 77, 289-304.	2.8	14
88	Orbital Resonances in the Solar Nebula: Strengths and Weaknesses. <i>Icarus</i> , 1993, 106, 264-273.	2.5	42
89	The origin of Pluto's peculiar orbit. <i>Nature</i> , 1993, 365, 819-821.	27.8	394
90	Tidal origin of the Laplace resonance and the resurfacing of Ganymede. <i>Icarus</i> , 1991, 94, 399-412.	2.5	92

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91	The role of secondary resonances in the orbital history of Miranda. Icarus, 1990, 85, 444-480.	2.5	85
92	Capture probabilities for secondary resonances. Icarus, 1990, 87, 249-264.	2.5	25
93	Dynamics of the Uranian and Saturnian satellite systems: A chaotic route to melting Miranda?. Icarus, 1988, 76, 295-334.	2.5	178