

Alessandro Morbidelli

List of PR Articles by Year in descending order

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121

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citing authors

#	ARTICLE	IF	PR CITATIONS
1	Dynamics of the α Pictoris planetary system and its falling evaporating bodies. <i>Astronomy and Astrophysics</i> , 2024, 683, A89.	5.9	13
2	Dating the Solar System's giant planet orbital instability using enstatite meteorites. <i>Science</i> , 2024, 384, 348-352.	36.4	20
3	The Solar System could have formed in a low-viscosity disc: A dynamical study from giant planet migration to the Nice model. <i>Astronomy and Astrophysics</i> , 2024, 688, A202.	5.9	12
4	Formation and evolution of a protoplanetary disk: Combining observations, simulations, and cosmochemical constraints. <i>Astronomy and Astrophysics</i> , 2024, 691, A147.	5.9	20
5	Breakdown of planetary systems in embedded clusters. <i>Monthly Notices of the Royal Astronomical Society</i> , 2023, 520, 637-648.	4.7	16
6	In situ enrichment in heavy elements of hot Jupiters. <i>Astronomy and Astrophysics</i> , 2023, 675, A75.	5.9	14
7	Identification of a 4.3 billion year old asteroid family and planetesimal population in the Inner Main Belt. <i>Astronomy and Astrophysics</i> , 2023, 676, A5.	5.9	11
8	Migration of Jupiter mass planets in discs with laminar accretion flows. <i>Astronomy and Astrophysics</i> , 2022, 658, A32.	5.9	20
9	Dynamical origin of the Dwarf Planet Ceres. <i>Icarus</i> , 2022, 379, 114933.	2.8	16
10	Stochastic accretion of the Earth. <i>Nature Astronomy</i> , 2022, 6, 951-960.	13.2	37
11	A re-assessment of the Kuiper belt size distribution for sub-kilometer objects, revealing collisional equilibrium at small sizes. <i>Icarus</i> , 2021, 356, 114256.	2.8	39
12	Migration of Jupiter-mass planets in low-viscosity discs. <i>Astronomy and Astrophysics</i> , 2021, 646, A166.	5.9	35
13	Formation of planetary systems by pebble accretion and migration. <i>Astronomy and Astrophysics</i> , 2021, 650, A152.	5.9	157
14	Constraints on Planetesimal Accretion Inferred from Particle-size Distribution in CO Chondrites. <i>Astrophysical Journal Letters</i> , 2021, 917, L25.	11.4	20
15	Common feedstocks of late accretion for the terrestrial planets. <i>Nature Astronomy</i> , 2021, 5, 1286-1296.	13.2	18
16	Probing the impact of varied migration and gas accretion rates for the formation of giant planets in the pebble accretion scenario. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 501, 2017-2028.	4.7	22
17	Terrestrial planet formation from lost inner solar system material. <i>Science Advances</i> , 2021, 7, .	11.0	118
18	Dynamical evidence for an early giant planet instability. <i>Icarus</i> , 2020, 339, 113605.	2.8	85

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19	Isotopic Evolution of the Inner Solar System Inferred from Molybdenum Isotopes in Meteorites. <i>Astrophysical Journal Letters</i> , 2020, 898, L2.	11.4	64
20	No evidence for interstellar planetesimals trapped in the Solar system. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2020, 497, L46-L49.	3.9	27
21	On the Origin and Evolution of the Material in 67P/Churyumov-Gerasimenko. <i>Space Science Reviews</i> , 2020, 216, .	5.4	55
22	Effects of early intense bombardment on megaregolith evolution and on lunar (and planetary) surface samples. <i>Meteoritics and Planetary Science</i> , 2020, 55, 2472-2492.	2.0	11
23	The Non-carbonaceousâ€“Carbonaceous Meteorite Dichotomy. <i>Space Science Reviews</i> , 2020, 216, .	5.4	163
24	Formation of Giant Planet Satellites. <i>Astrophysical Journal</i> , 2020, 894, 143.	5.2	80
25	Planet formation by pebble accretion in ringed disks. <i>Astronomy and Astrophysics</i> , 2020, 638, A1.	5.9	78
26	Origin and Evolution of Cometary Nuclei. <i>Space Science Reviews</i> , 2020, 216, .	5.4	38
27	A low-mass planet candidate orbiting Proxima Centauri at a distance of 1.5 AU. <i>Science Advances</i> , 2020, 6, .	11.0	73
28	Subsolar Al/Si and Mg/Si ratios of non-carbonaceous chondrites reveal planetesimal formation during early condensation in the protoplanetary disk. <i>Earth and Planetary Science Letters</i> , 2020, 538, 116220.	4.8	42
29	A study of 3-dimensional shapes of asteroid families with an application to Eos. <i>Icarus</i> , 2019, 317, 434-441.	2.8	9
30	Formation of planetary systems by pebble accretion and migration. <i>Astronomy and Astrophysics</i> , 2019, 627, A83.	5.9	225
31	Ancient and primordial collisional families as the main sources of X-type asteroids of the inner main belt. <i>Astronomy and Astrophysics</i> , 2019, 624, A69.	5.9	49
32	Are the Moon's Nearsideâ€“Farside Asymmetries the Result of a Giant Impact?. <i>Journal of Geophysical Research E: Planets</i> , 2019, 124, 2117-2140.	3.6	53
33	Formation of planetary systems by pebble accretion and migration: growth of gas giants. <i>Astronomy and Astrophysics</i> , 2019, 623, A88.	5.9	150
34	Dynamical effects on the classical Kuiper belt during the excited-Neptune model. <i>Icarus</i> , 2019, 334, 89-98.	2.8	7
35	Compositional distributions and evolutionary processes for the near-Earth object population: Results from the MIT-Hawaii Near-Earth Object Spectroscopic Survey (MITHNEOS). <i>Icarus</i> , 2019, 324, 41-76.	2.8	194
36	Debiased orbit and absolute-magnitude distributions for near-Earth objects. <i>Icarus</i> , 2018, 312, 181-207.	2.8	232

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37	The timeline of the lunar bombardment: Revisited. <i>Icarus</i> , 2018, 305, 262-276.	2.8	236
38	Reconstructing the size distribution of the primordial Main Belt. <i>Icarus</i> , 2018, 304, 14-23.	2.8	25
39	Toward a new paradigm for Type II migration. <i>Astronomy and Astrophysics</i> , 2018, 617, A98.	5.9	65
40	Why do protoplanetary disks appear not massive enough to form the known exoplanet population?. <i>Astronomy and Astrophysics</i> , 2018, 618, L3.	5.9	217
41	Pebble-isolation mass: Scaling law and implications for the formation of super-Earths and gas giants. <i>Astronomy and Astrophysics</i> , 2018, 612, A30.	5.9	264
42	Formation of the terrestrial planets in the solar system around 1 au via radial concentration of planetesimals. <i>Astronomy and Astrophysics</i> , 2018, 612, L5.	5.9	32
43	Size-dependent modification of asteroid family Yarkovsky V-shapes. <i>Astronomy and Astrophysics</i> , 2018, 611, A82.	5.9	17
44	How primordial is the structure of comet 67P?. <i>Astronomy and Astrophysics</i> , 2017, 597, A61.	5.9	52
45	Cometary impact rates on the Moon and planets during the late heavy bombardment. <i>Astronomy and Astrophysics</i> , 2017, 598, A67.	5.9	19
46	Yarkovsky V-shape identification of asteroid families. <i>Icarus</i> , 2017, 282, 290-312.	2.8	40
47	Secular orbital evolution of Jupiter family comets. <i>Astronomy and Astrophysics</i> , 2017, 598, A110.	5.9	23
48	Origin and Evolution of Short-period Comets. <i>Astrophysical Journal</i> , 2017, 845, 27.	5.2	142
49	Breaking the chains: hot super-Earth systems from migration and disruption of compact resonant chains. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 470, 1750-1770.	4.7	343
50	Magnitude and timing of the giant planet instability: A reassessment from the perspective of the asteroid belt. <i>Astronomy and Astrophysics</i> , 2016, 592, A72.	5.9	12
51	The radial dependence of pebble accretion rates: A source of diversity in planetary systems. <i>Astronomy and Astrophysics</i> , 2016, 591, A72.	5.9	147
52	Evolution of protoplanetary discs with magnetically driven disc winds. <i>Astronomy and Astrophysics</i> , 2016, 596, A74.	5.9	185
53	Is the Grand Tack model compatible with the orbital distribution of main belt asteroids?. <i>Icarus</i> , 2016, 272, 114-124.	2.8	50
54	Challenges in planet formation. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 1962-1980.	3.6	148

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55	Fossilized condensation lines in the Solar System protoplanetary disk. <i>Icarus</i> , 2016, 267, 368-376.	2.8	179
56	Origins of volatile elements (H, C, N, noble gases) on Earth and Mars in light of recent results from the ROSETTA cometary mission. <i>Earth and Planetary Science Letters</i> , 2016, 441, 91-102.	4.8	172
57	The structure of protoplanetary discs around evolving young stars. <i>Astronomy and Astrophysics</i> , 2015, 575, A28.	5.9	260
58	Dynamical Problems in Extrasolar Planetary Science. <i>Proceedings of the International Astronomical Union</i> , 2015, 11, 3-5.	0.0	0
59	The great dichotomy of the Solar System: Small terrestrial embryos and massive giant planet cores. <i>Icarus</i> , 2015, 258, 418-429.	2.8	217
60	Accretion of Uranus and Neptune from inward-migrating planetary embryos blocked by Jupiter and Saturn. <i>Astronomy and Astrophysics</i> , 2015, 582, A99.	5.9	74
61	A reassessment of the in situ formation of close-in super-Earths. <i>Astronomy and Astrophysics</i> , 2015, 578, A36.	5.9	106
62	Terrestrial planet formation constrained by Mars and the structure of the asteroid belt. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 453, 3620-3635.	4.7	108
63	GAS GIANT PLANETS AS DYNAMICAL BARRIERS TO INWARD-MIGRATING SUPER-EARTHS. <i>Astrophysical Journal Letters</i> , 2015, 800, L22.	11.4	112
64	Comets as collisional fragments of a primordial planetesimal disk. <i>Astronomy and Astrophysics</i> , 2015, 583, A43.	5.9	79
65	Suppression of type I migration by disk winds. <i>Astronomy and Astrophysics</i> , 2015, 584, L1.	5.9	41
66	Separating gas-giant and ice-giant planets by halting pebble accretion. <i>Astronomy and Astrophysics</i> , 2014, 572, A35.	5.9	376
67	Stellar irradiated discs and implications on migration of embedded planets. <i>Astronomy and Astrophysics</i> , 2014, 564, A135.	5.9	89
68	Migration of Earth-sized planets in 3D radiative discs. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 440, 683-695.	4.7	105
69	TERRESTRIAL PLANET FORMATION IN THE PRESENCE OF MIGRATING SUPER-EARTHS. <i>Astrophysical Journal</i> , 2014, 794, 11.	5.2	65
70	The Grand Tack model: a critical review. <i>Proceedings of the International Astronomical Union</i> , 2014, 9, 194-203.	0.0	34
71	THE ABSOLUTE MAGNITUDE DISTRIBUTION OF KUIPER BELT OBJECTS. <i>Astrophysical Journal</i> , 2014, 782, 100.	5.2	226
72	Lunar and terrestrial planet formation in the Grand Tack scenario. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2014, 372, 20130174.	2.6	106

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73	Earth-like habitats in planetary systems. <i>Planetary and Space Science</i> , 2014, 98, 254-267.	1.6	37
74	Origin of the peculiar eccentricity distribution of the inner cold Kuiper belt. <i>Icarus</i> , 2014, 232, 81-87.	2.8	28
75	Meridional circulation of gas into gaps opened by giant planets in three-dimensional low-viscosity disks. <i>Icarus</i> , 2014, 232, 266-270.	2.8	127
76	Constraining the cratering chronology of Vesta. <i>Planetary and Space Science</i> , 2014, 103, 131-142.	1.6	48
77	Stellar irradiated discs and implications on migration of embedded planets. <i>Astronomy and Astrophysics</i> , 2014, 570, A75.	5.9	54
78	Oort cloud and Scattered Disc formation during a late dynamical instability in the Solar System. <i>Icarus</i> , 2013, 225, 40-49.	2.8	213
79	The Eos family halo. <i>Icarus</i> , 2013, 223, 844-849.	2.8	38
80	CAPTURE OF TROJANS BY JUMPING JUPITER. <i>Astrophysical Journal</i> , 2013, 768, 45.	5.2	231
81	Constraining the cometary flux through the asteroid belt during the late heavy bombardment. <i>Astronomy and Astrophysics</i> , 2013, 551, A117.	5.9	117
82	A METHOD TO CONSTRAIN THE SIZE OF THE PROTOSOLAR NEBULA. <i>Astronomical Journal</i> , 2012, 143, 91.	5.0	22
83	STATISTICAL STUDY OF THE EARLY SOLAR SYSTEM'S INSTABILITY WITH FOUR, FIVE, AND SIX GIANT PLANETS. <i>Astronomical Journal</i> , 2012, 144, 117.	5.0	325
84	Dynamical capture in the Pluto-Charon system. <i>Celestial Mechanics and Dynamical Astronomy</i> , 2012, 114, 341-352.	1.3	16
85	Building Terrestrial Planets. <i>Annual Review of Earth and Planetary Sciences</i> , 2012, 40, 251-275.	10.9	440
86	The onset of the lunar cataclysm as recorded in its ancient crater populations. <i>Earth and Planetary Science Letters</i> , 2012, 325-326, 27-38.	4.8	112
87	A sawtooth-like timeline for the first billion years of lunar bombardment. <i>Earth and Planetary Science Letters</i> , 2012, 355-356, 144-151.	4.8	250
88	Dynamics of pebbles in the vicinity of a growing planetary embryo: hydro-dynamical simulations. <i>Astronomy and Astrophysics</i> , 2012, 546, A18.	5.9	177
89	Did the Hilda collisional family form during the late heavy bombardment?. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 414, 2716-2727.	4.7	47
90	LATE ORBITAL INSTABILITIES IN THE OUTER PLANETS INDUCED BY INTERACTION WITH A SELF-GRAVITATING PLANETESIMAL DISK. <i>Astronomical Journal</i> , 2011, 142, 152.	5.0	221

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91	A coherent and comprehensive model of the evolution of the outer Solar System. <i>Comptes Rendus Physique</i> , 2010, 11, 651-659.	1.0	39
92	THE IRREGULAR SATELLITES: THE MOST COLLISIONALLY EVOLVED POPULATIONS IN THE SOLAR SYSTEM. <i>Astronomical Journal</i> , 2010, 139, 994-1014.	5.0	118
93	EVIDENCE FROM THE ASTEROID BELT FOR A VIOLENT PAST EVOLUTION OF JUPITER'S ORBIT. <i>Astronomical Journal</i> , 2010, 140, 1391-1401.	5.0	206
94	Constructing the secular architecture of the solar system II: the terrestrial planets. <i>Astronomy and Astrophysics</i> , 2009, 507, 1053-1065.	5.9	135
95	Building the terrestrial planets: Constrained accretion in the inner Solar System. <i>Icarus</i> , 2009, 203, 644-662.	2.8	398
96	Asteroids were born big. <i>Icarus</i> , 2009, 204, 558-573.	2.8	468
97	Did Saturn's rings form during the Late Heavy Bombardment?. <i>Icarus</i> , 2009, 199, 413-428.	2.8	116
98	Considerations on the magnitude distributions of the Kuiper belt and of the Jupiter Trojans. <i>Icarus</i> , 2009, 202, 310-315.	2.8	58
99	Constructing the secular architecture of the solar system. <i>Astronomy and Astrophysics</i> , 2009, 507, 1041-1052.	5.9	92
100	Origin of the structure of the Kuiper belt during a dynamical instability in the orbits of Uranus and Neptune. <i>Icarus</i> , 2008, 196, 258-273.	2.8	421
101	ON A SCATTERED-DISK ORIGIN FOR THE 2003 EL ₆₁ COLLISIONAL FAMILY—AN EXAMPLE OF THE IMPORTANCE OF COLLISIONS ON THE DYNAMICS OF SMALL BODIES. <i>Astronomical Journal</i> , 2008, 136, 1079-1088.	5.0	55
102	Capture of Irregular Satellites during Planetary Encounters. <i>Astronomical Journal</i> , 2007, 133, 1962-1976.	5.0	201
103	Dynamics of the Giant Planets of the Solar System in the Gaseous Protoplanetary Disk and Their Relationship to the Current Orbital Architecture. <i>Astronomical Journal</i> , 2007, 134, 1790-1798.	5.0	293
104	Models of the collisional damping scenario for ice-giant planets and Kuiper belt formation. <i>Icarus</i> , 2007, 189, 196-212.	2.8	39
105	The dynamics of Jupiter and Saturn in the gaseous protoplanetary disk. <i>Icarus</i> , 2007, 191, 158-171.	2.8	227
106	The primordial excitation and clearing of the asteroid belt—Revisited. <i>Icarus</i> , 2007, 191, 434-452.	2.8	157
107	Cavity opening by a giant planet in a protoplanetary disc and effects on planetary migration. <i>Monthly Notices of the Royal Astronomical Society</i> , 2007, 377, 1324-1336.	4.7	171
108	Disk Surface Density Transitions as Protoplanet Traps. <i>Astrophysical Journal</i> , 2006, 642, 478-487.	5.2	309

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109	Yarkovsky/YORP chronology of asteroid families. <i>Icarus</i> , 2006, 182, 118-142.	2.8	172
110	Terrestrial planet formation with strong dynamical friction. <i>Icarus</i> , 2006, 184, 39-58.	2.8	401
111	The population of faint Jupiter family comets near the Earth. <i>Icarus</i> , 2006, 185, 211-222.	2.8	30
112	On the width and shape of gaps in protoplanetary disks. <i>Icarus</i> , 2006, 181, 587-604.	2.8	542
113	Yarkovsky footprints in the Eos family. <i>Icarus</i> , 2006, 182, 92-117.	2.8	97
114	The population of Near Earth Asteroids in coorbital motion with Venus. <i>Icarus</i> , 2006, 185, 29-38.	2.8	24
115	The fossilized size distribution of the main asteroid belt. <i>Icarus</i> , 2005, 175, 111-140.	2.8	530
116	Planetary migration in a planetesimal disk: why did Neptune stop at 30 AU?. <i>Icarus</i> , 2004, 170, 492-507.	2.8	205
117	The Yarkovsky-driven origin of near-Earth asteroids. <i>Icarus</i> , 2003, 163, 120-134.	2.8	137
118	The Flora Family: A Case of the Dynamically Dispersed Collisional Swarm?. <i>Icarus</i> , 2002, 157, 155-172.	2.8	143
119	Numerous Weak Resonances Drive Asteroids toward Terrestrial Planets Orbits. <i>Icarus</i> , 1999, 139, 295-308.	2.8	169
120	Dynamical Lifetimes of Objects Injected into Asteroid Belt Resonances. <i>Science</i> , 1997, 277, 197-201.	36.4	417
121	Slow crossing of a stochastic layer. <i>Physica D: Nonlinear Phenomena</i> , 1993, 68, 187-200.	2.9	14