

# John J Kavelaars

## List of Publications by Citations

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127 papers	4,348 citations	40 h-index	62 g-index
128 ext. papers	4,817 ext. citations	7.4 avg, IF	5.11 L-index

#	Paper	IF	Citations
127	THE NEXT GENERATION VIRGO CLUSTER SURVEY (NGVS). I. INTRODUCTION TO THE SURVEY. <i>Astrophysical Journal, Supplement Series</i> , <b>2012</b> , 200, 4	8	261
126	Globular Cluster Systems in Brightest Cluster Galaxies: Bimodal Metallicity Distributions and the Nature of the High-Luminosity Clusters. <i>Astrophysical Journal</i> , <b>2006</b> , 636, 90-114	4.7	174
125	The Structure of the Kuiper Belt: Size Distribution and Radial Extent. <i>Astronomical Journal</i> , <b>2001</b> , 122, 1051-1066	4.9	173
124	THE CANADA-FRANCE ECLIPTIC PLANE SURVEY BULL DATA RELEASE: THE ORBITAL STRUCTURE OF THE KUIPER BELT. <i>Astronomical Journal</i> , <b>2011</b> , 142, 131	4.9	171
123	Resolved debris discs around A stars in the Herschel DEBRIS survey. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2013</b> , 428, 1263-1280	4.3	132
122	THE RESONANT TRANS-NEPTUNIAN POPULATIONS. <i>Astronomical Journal</i> , <b>2012</b> , 144, 23	4.9	105
121	Herschel imaging of 61 Vir: implications for the prevalence of debris in low-mass planetary systems. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2012</b> , 424, 1206-1223	4.3	94
120	THE SIZE DISTRIBUTION OF KUIPER BELT OBJECTS FORD? 10 km. <i>Astronomical Journal</i> , <b>2009</b> , 137, 72-82	4.9	94
119	Pencil-Beam Surveys for Faint Trans-Neptunian Objects. <i>Astronomical Journal</i> , <b>1998</b> , 116, 2042-2054	4.9	91
118	Discovery of 12 satellites of Saturn exhibiting orbital clustering. <i>Nature</i> , <b>2001</b> , 412, 163-6	50.4	89
117	DESTRUCTION OF BINARY MINOR PLANETS DURING NEPTUNE SCATTERING. <i>Astrophysical Journal Letters</i> , <b>2010</b> , 722, L204-L208	7.9	85
116	THE OUTER SOLAR SYSTEM ORIGINS SURVEY. I. DESIGN AND FIRST-QUARTER DISCOVERIES. <i>Astronomical Journal</i> , <b>2016</b> , 152, 70	4.9	84
115	SONS: The JCMT legacy survey of debris discs in the submillimetre. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2017</b> , 470, 3606-3663	4.3	83
114	Initial results from the New Horizons exploration of 2014 MU, a small Kuiper Belt object. <i>Science</i> , <b>2019</b> , 364,	33.3	80
113	Impact craters on Pluto and Charon indicate a deficit of small Kuiper belt objects. <i>Science</i> , <b>2019</b> , 363, 955-959	33.3	77
112	Col-OSSOS: Colors of the Interstellar Planetesimal 11/Dumumua. <i>Astrophysical Journal Letters</i> , <b>2017</b> , 851, L38	7.9	75
111	The Kuiper belt luminosity function from mR=21 to 26. <i>Icarus</i> , <b>2008</b> , 195, 827-843	3.8	75

110	OSSOS. VII. 800+ Trans-Neptunian Objects—The Complete Data Release. <i>Astrophysical Journal, Supplement Series</i> , <b>2018</b> , 236, 18	8	71
109	THE CANADA-FRANCE ECLIPTIC PLANE SURVEY—3 DATA RELEASE: THE ORBITAL STRUCTURE OF THE KUIPER BELT. <i>Astronomical Journal</i> , <b>2009</b> , 137, 4917-4935	4.9	71
108	On the asteroid belt's orbital and size distribution. <i>Icarus</i> , <b>2009</b> , 202, 104-118	3.8	71
107	Discovery of five irregular moons of Neptune. <i>Nature</i> , <b>2004</b> , 430, 865-7	50.4	69
106	CHARACTERIZATION OF SEVEN ULTRA-WIDE TRANS-NEPTUNIAN BINARIES. <i>Astrophysical Journal</i> , <b>2011</b> , 743, 1	4.7	67
105	Discovery of two distant irregular moons of Uranus. <i>Nature</i> , <b>1998</b> , 392, 897-899	50.4	62
104	Alignment in star-debris disc systems seen by Herschel. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , <b>2014</b> , 438, L31-L35	4.3	60
103	A DEBRIS disk around the planet hosting M-star GJ581 spatially resolved with Herschel. <i>Astronomy and Astrophysics</i> , <b>2012</b> , 548, A86	5.1	60
102	SSOS: A Moving-Object Image Search Tool for Asteroid Precovery. <i>Publications of the Astronomical Society of the Pacific</i> , <b>2012</b> , 124, 579-585	5	55
101	A Uranian Trojan and the frequency of temporary giant-planet co-orbitals. <i>Science</i> , <b>2013</b> , 341, 994-7	33.3	52
100	The Kuiper Belt luminosity function from $m_R = 22$ to 25. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2006</b> , 365, 429-438	4.3	49
99	All planetesimals born near the Kuiper belt formed as binaries. <i>Nature Astronomy</i> , <b>2017</b> , 1,	12.1	47
98	A CAREFULLY CHARACTERIZED AND TRACKED TRANS-NEPTUNIAN SURVEY: THE SIZE DISTRIBUTION OF THE PLUTINOS AND THE NUMBER OF NEPTUNIAN TROJANS. <i>Astronomical Journal</i> , <b>2016</b> , 152, 111	4.9	47
97	COLLISIONAL EVOLUTION OF ULTRA-WIDE TRANS-NEPTUNIAN BINARIES. <i>Astrophysical Journal</i> , <b>2012</b> , 744, 139	4.7	46
96	A POSSIBLE DIVOT IN THE SIZE DISTRIBUTION OF THE KUIPER BELT'S SCATTERING OBJECTS. <i>Astrophysical Journal Letters</i> , <b>2013</b> , 764, L2	7.9	46
95	THE GLOBULAR CLUSTER SYSTEMS IN THE COMA ELLIPTICALS. IV: WFPC2 PHOTOMETRY FOR FIVE GIANT ELLIPTICALS „ <i>Astronomical Journal</i> , <b>2009</b> , 137, 3314-3328	4.9	46
94	OSSOS. VI. Striking Biases in the Detection of Large Semimajor Axis Trans-Neptunian Objects. <i>Astronomical Journal</i> , <b>2017</b> , 154, 50	4.9	45
93	CONSEQUENCES OF A DISTANT MASSIVE PLANET ON THE LARGE SEMIMAJOR AXIS TRANS-NEPTUNIAN OBJECTS. <i>Astronomical Journal</i> , <b>2017</b> , 153, 63	4.9	44

92	The geology and geophysics of Kuiper Belt object (486958) Arrokoth. <i>Science</i> , <b>2020</b> , 367,	33.3	43
91	Exploration of the Kuiper Belt by High-Precision Photometric Stellar Occultations: First Results. <i>Astronomical Journal</i> , <b>2006</b> , 132, 819-822	4.9	43
90	OSSOS III: RESONANT TRANS-NEPTUNIAN POPULATIONS: CONSTRAINTS FROM THE FIRST QUARTER OF THE OUTER SOLAR SYSTEM ORIGINS SURVEY. <i>Astronomical Journal</i> , <b>2016</b> , 152, 23	4.9	42
89	The solar nebula origin of (486958) Arrokoth, a primordial contact binary in the Kuiper Belt. <i>Science</i> , <b>2020</b> , 367,	33.3	40
88	The CFEPS Kuiper Belt Survey: Strategy and presurvey results. <i>Icarus</i> , <b>2006</b> , 185, 508-522	3.8	40
87	The CanadaFrance Ecliptic Plane Survey (CFEPS) High-latitude Component. <i>Astronomical Journal</i> , <b>2017</b> , 153, 236	4.9	38
86	OSSOS. VIII. The Transition between Two Size Distribution Slopes in the Scattering Disk. <i>Astronomical Journal</i> , <b>2018</b> , 155, 197	4.9	38
85	OSSOS. II. A SHARP TRANSITION IN THE ABSOLUTE MAGNITUDE DISTRIBUTION OF THE KUIPER BELT SCATTERING POPULATION. <i>Astronomical Journal</i> , <b>2016</b> , 151, 31	4.9	37
84	Col-OSSOS: z-Band Photometry Reveals Three Distinct TNO Surface Types. <i>Astronomical Journal</i> , <b>2017</b> , 154, 101	4.9	37
83	ON THE FORMATION LOCATION OF URANUS AND NEPTUNE AS CONSTRAINED BY DYNAMICAL AND CHEMICAL MODELS OF COMETS. <i>Astrophysical Journal Letters</i> , <b>2011</b> , 734, L30	7.9	37
82	A new analysis of the short-duration, hard-spectrum GRB 051103, a possible extragalactic soft gamma repeater giant flare. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2010</b> , 403, 342-352	4.3	37
81	The extreme Kuiper Belt binary 2001 QW322. <i>Science</i> , <b>2008</b> , 322, 432-4	33.3	37
80	Color, composition, and thermal environment of Kuiper Belt object (486958) Arrokoth. <i>Science</i> , <b>2020</b> , 367,	33.3	35
79	A SEARCH FOR SUB-km KUIPER BELT OBJECTS WITH THE METHOD OF SERENDIPITOUS STELLAR OCCULTATIONS. <i>Astronomical Journal</i> , <b>2008</b> , 135, 1039-1049	4.9	35
78	High-precision Orbit Fitting and Uncertainty Analysis of (486958) 2014 MU69. <i>Astronomical Journal</i> , <b>2018</b> , 156, 20	4.9	34
77	The discovery of faint irregular satellites of Uranus. <i>Icarus</i> , <b>2004</b> , 169, 474-481	3.8	33
76	OSSOS: X. How to Use a Survey Simulator: Statistical Testing of Dynamical Models Against the Real Kuiper Belt. <i>Frontiers in Astronomy and Space Sciences</i> , <b>2018</b> , 5,	3.8	31
75	OSSOS. V. Diffusion in the Orbit of a High-perihelion Distant Solar System Object. <i>Astronomical Journal</i> , <b>2017</b> , 153, 262	4.9	30

74	The Globular Cluster Systems in the Coma Ellipticals. I. The Luminosity Function in NGC 4874 and Implications for Hubble's Constant. <i>Astrophysical Journal</i> , <b>2000</b> , 533, 125-136	4.7	30
73	The Structure of the Distant Kuiper Belt in a Nice Model Scenario. <i>Astronomical Journal</i> , <b>2017</b> , 153, 127	4.9	29
72	A derivation of the luminosity function of the Kuiper belt from a broken power-law size distribution. <i>Icarus</i> , <b>2008</b> , 198, 452-458	3.8	28
71	Insights into Planet Formation from Debris Disks: I. The Solar System as an Archetype for Planesimal Evolution. <i>Space Science Reviews</i> , <b>2016</b> , 205, 213-230	7.5	27
70	THE 5:1 NEPTUNE RESONANCE AS PROBED BY CFEPS: DYNAMICS AND POPULATION. <i>Astronomical Journal</i> , <b>2015</b> , 149, 202	4.9	26
69	The Globular Cluster Systems in the Coma Ellipticals. II. Metallicity Distribution and Radial Structure in NGC 4874 and Implications for Galaxy Formation. <i>Astrophysical Journal</i> , <b>2000</b> , 533, 137-148	4.7	26
68	THE NEXT GENERATION VIRGO CLUSTER SURVEY. XV. THE PHOTOMETRIC REDSHIFT ESTIMATION FOR BACKGROUND SOURCES. <i>Astrophysical Journal</i> , <b>2014</b> , 797, 102	4.7	25
67	Kinematics and metallicities of globular clusters in M104. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>1997</b> , 284, 376-384	4.3	25
66	OBSERVATIONAL SIGNATURES OF A MASSIVE DISTANT PLANET ON THE SCATTERING DISK. <i>Astronomical Journal</i> , <b>2017</b> , 153, 33	4.9	24
65	Col-OSSOS: The Colors of the Outer Solar System Origins Survey. <i>Astrophysical Journal, Supplement Series</i> , <b>2019</b> , 243, 12	8	22
64	OSSOS. IX. Two Objects in Neptune's 9:1 Resonance Implications for Resonance Sticking in the Scattering Population. <i>Astronomical Journal</i> , <b>2018</b> , 155, 260	4.9	21
63	Introduction to the CFHT Legacy Survey final release (CFHTLS T0007) <b>2012</b> ,		21
62	The Short Rotation Period of Nereid. <i>Astrophysical Journal</i> , <b>2003</b> , 591, L71-L74	4.7	21
61	TRIPPy: TRAILED IMAGE PHOTOMETRY IN PYTHON. <i>Astronomical Journal</i> , <b>2016</b> , 151, 158	4.9	21
60	2011 HM102: DISCOVERY OF A HIGH-INCLINATION L5 NEPTUNE TROJAN IN THE SEARCH FOR A POST-PLUTO NEW HORIZONS TARGET. <i>Astronomical Journal</i> , <b>2013</b> , 145, 96	4.9	20
59	Crater Density Predictions for New Horizons Flyby Target 2014 MU69. <i>Astrophysical Journal Letters</i> , <b>2019</b> , 872, L5	7.9	19
58	DISCOVERY OF A NEW MEMBER OF THE INNER OORT CLOUD FROM THE NEXT GENERATION VIRGO CLUSTER SURVEY. <i>Astrophysical Journal Letters</i> , <b>2013</b> , 775, L8	7.9	19
57	Col-OSSOS: Color and Inclination Are Correlated throughout the Kuiper Belt. <i>Astronomical Journal</i> , <b>2019</b> , 157, 94	4.9	18

56	Discovery of a Low-Eccentricity, High-Inclination Kuiper Belt Object at 58 AU. <i>Astrophysical Journal</i> , <b>2006</b> , 640, L83-L86	4.7	18
55	Size and Shape Constraints of (486958) Arrokoth from Stellar Occultations. <i>Astronomical Journal</i> , <b>2020</b> , 159, 130	4.9	17
54	THE DEBRIS DISK AROUND 10 DORADUS RESOLVED WITH HERSCHEL. <i>Astrophysical Journal</i> , <b>2013</b> , 762, 52	4.7	16
53	Pencil-Beam Surveys for Trans-Neptunian Objects: Novel Methods for Optimization and Characterization. <i>Publications of the Astronomical Society of the Pacific</i> , <b>2010</b> , 122, 549-559	5	16
52	OSSOS. IV. DISCOVERY OF A DWARF PLANET CANDIDATE IN THE 9:2 RESONANCE WITH NEPTUNE. <i>Astronomical Journal</i> , <b>2016</b> , 152, 212	4.9	16
51	On the origin & thermal stability of Arrokoth's and Pluto's ices. <i>Icarus</i> , <b>2021</b> , 356, 114072	3.8	15
50	SYSTEMATIC BIASES IN THE OBSERVED DISTRIBUTION OF KUIPER BELT OBJECT ORBITS. <i>Astronomical Journal</i> , <b>2010</b> , 139, 2249-2257	4.9	14
49	KUIPER BELT OBJECT OCCULTATIONS: EXPECTED RATES, FALSE POSITIVES, AND SURVEY DESIGN. <i>Astronomical Journal</i> , <b>2009</b> , 137, 4270-4281	4.9	14
48	OSSOS. XIII. Fossilized Resonant Dropouts Tentatively Confirm Neptune's Migration Was Grainy and Slow. <i>Astronomical Journal</i> , <b>2019</b> , 157, 253	4.9	12
47	OSSOS XX: The Meaning of Kuiper Belt Colors. <i>Astronomical Journal</i> , <b>2020</b> , 160, 46	4.9	12
46	OSSOS. XIX. Testing Early Solar System Dynamical Models Using OSSOS Centaur Detections. <i>Astronomical Journal</i> , <b>2019</b> , 158, 132	4.9	11
45	Phase Curves from the Kuiper Belt: Photometric Properties of Distant Kuiper Belt Objects Observed by New Horizons. <i>Astronomical Journal</i> , <b>2019</b> , 158, 123	4.9	10
44	On the Detection of Two New Trans-Neptunian Binaries from the CFPS Kuiper Belt Survey. <i>Publications of the Astronomical Society of the Pacific</i> , <b>2010</b> , 122, 1030-1034	5	10
43	New Horizons Observations of the Cosmic Optical Background. <i>Astrophysical Journal</i> , <b>2021</b> , 906, 77	4.7	10
42	LIMITS ON QUAOAR'S ATMOSPHERE. <i>Astrophysical Journal Letters</i> , <b>2013</b> , 774, L18	7.9	8
41	The color and binarity of (486958) 2014 MU69 and other long-range New Horizons Kuiper Belt targets. <i>Icarus</i> , <b>2019</b> , 334, 22-29	3.8	8
40	Perspectives on the distribution of orbits of distant Trans-Neptunian objects <b>2020</b> , 61-77		8
39	OSSOS. XIV. The Plane of the Kuiper Belt. <i>Astronomical Journal</i> , <b>2019</b> , 158, 49	4.9	7

38	OSSOS. <i>Astronomy and Astrophysics</i> , <b>2019</b> , 621, A102	5.1	7
37	Col-OSSOS: Compositional Homogeneity of Three Kuiper Belt Binaries. <i>Planetary Science Journal</i> , <b>2020</b> , 1, 16	2.9	6
36	OSSOS. XXI. Collision Probabilities in the Edgeworth-Kuiper Belt. <i>Astronomical Journal</i> , <b>2021</b> , 161, 195	4.9	6
35	OSSOS. XVIII. Constraining Migration Models with the 2:1 Resonance Using the Outer Solar System Origins Survey. <i>Astronomical Journal</i> , <b>2019</b> , 158, 214	4.9	5
34	Kuiper Belt Occultation Predictions. <i>Publications of the Astronomical Society of the Pacific</i> , <b>2013</b> , 125, 1000-1014	5	5
33	A rotational light curve for the Kuiper belt object 1997 CV29. <i>Icarus</i> , <b>2004</b> , 167, 220-224	3.8	5
32	A Single-chord Stellar Occultation by the Extreme Trans-Neptunian Object (541132) Leleuēnua. <i>Astronomical Journal</i> , <b>2020</b> , 159, 230	4.9	4
31	Pencil-beam surveys for trans-neptunian objects: Limits on distant populations. <i>Icarus</i> , <b>2010</b> , 209, 766-770	3.8	4
30	Stellar Occultation by the Resonant Trans-Neptunian Object (523764) 2014 WC510 Reveals a Close Binary TNO. <i>Planetary Science Journal</i> , <b>2020</b> , 1, 48	2.9	4
29	Persephone: A Pluto-system Orbiter and Kuiper Belt Explorer. <i>Planetary Science Journal</i> , <b>2021</b> , 2, 75	2.9	4
28	OSSOS. XII. Variability Studies of 65 Trans-Neptunian Objects Using the Hyper Suprime-Cam. <i>Astrophysical Journal, Supplement Series</i> , <b>2019</b> , 244, 19	8	3
27	Assessment of Astronomical Images Using Combined Machine-learning Models. <i>Astronomical Journal</i> , <b>2020</b> , 159, 170	4.9	3
26	OSSOS Finds an Exponential Cutoff in the Size Distribution of the Cold Classical Kuiper Belt. <i>Astrophysical Journal Letters</i> , <b>2021</b> , 920, L28	7.9	3
25	OSSOS: The eccentricity and inclination distributions of the stable neptunian Trojans. <i>Icarus</i> , <b>2021</b> , 361, 114391	3.8	3
24	A dearth of small members in the Haumea family revealed by OSSOS. <i>Nature Astronomy</i> , <b>2020</b> , 4, 89-96	12.1	3
23	Occultations by Small Non-spherical Trans-Neptunian Objects. I. A New Event Simulator for TAOS II. <i>Publications of the Astronomical Society of the Pacific</i> , <b>2019</b> , 131, 064401	5	2
22	ON A POSSIBLE SIZE/COLOR RELATIONSHIP IN THE KUIPER BELT. <i>Astronomical Journal</i> , <b>2013</b> , 146, 75	4.9	2
21	An Astronomical Image Content-based Recommendation System Using Combined Deep Learning Models in a Fully Unsupervised Mode. <i>Astronomical Journal</i> , <b>2021</b> , 161, 227	4.9	2



20	OSSOS. XVII. An upper limit on the number of distant planetary objects in the Solar System. <i>Icarus</i> , <b>2021</b> , 356, 113793	3.8	2
19	Orbits and Occultation Opportunities of 15 TNOs Observed by New Horizons. <i>Planetary Science Journal</i> , <b>2022</b> , 3, 23	2.9	1
18	OSSOS. XXIII. 2013 VZ70 and the Temporary Coorbitals of the Giant Planets. <i>Planetary Science Journal</i> , <b>2021</b> , 2, 212	2.9	1
17	Col-OSSOS: The Distinct Color Distribution of Single and Binary Cold Classical KBOs. <i>Planetary Science Journal</i> , <b>2021</b> , 2, 90	2.9	1
16	The Sizes and Albedos of Centaurs 2014 YY49 and 2013 NL24 from Stellar Occultation Measurements by RECON. <i>Planetary Science Journal</i> , <b>2021</b> , 2, 22	2.9	1
15	The TAOS II Survey: Real-time Detection and Characterization of Occultation Events. <i>Publications of the Astronomical Society of the Pacific</i> , <b>2021</b> , 133, 034503	5	1
14	FOSSIL. I. The Spin Rate Limit of Jupiter Trojans. <i>Planetary Science Journal</i> , <b>2021</b> , 2, 191	2.9	1
13	FOSSIL. II. The Rotation Periods of Small-sized Hilda Asteroids. <i>Astrophysical Journal, Supplement Series</i> , <b>2022</b> , 259, 7	8	1
12	Anomalous Flux in the Cosmic Optical Background Detected with New Horizons Observations. <i>Astrophysical Journal Letters</i> , <b>2022</b> , 927, L8	7.9	1
11	A Predicted Dearth of Majority Hypervolatile Ices in Oort Cloud Comets. <i>Planetary Science Journal</i> , <b>2022</b> , 3, 112	2.9	1
10	The Diverse Shapes of Dwarf Planet and Large KBO Phase Curves Observed from New Horizons. <i>Planetary Science Journal</i> , <b>2022</b> , 3, 95	2.9	0
9	OSSOS XXV: Large Populations and Scattering Sticking in the Distant Trans-Neptunian Resonances. <i>Planetary Science Journal</i> , <b>2022</b> , 3, 113	2.9	0
8	Solar System Object Image Search: A precovery search engine. <i>Proceedings of the International Astronomical Union</i> , <b>2015</b> , 10, 270-273	0.1	
7	The Trans-Neptunian Automated Occultation Survey (TAOS II). <i>Proceedings of the International Astronomical Union</i> , <b>2017</b> , 14, 193-196	0.1	
6	Locating the Dust in A Star Debris Discs. <i>Proceedings of the International Astronomical Union</i> , <b>2013</b> , 8, 330-331	0.1	
5	Col-OSSOS: Probing Ice Line/Color Transitions within the Kuiper Belt Progenitor Populations. <i>Planetary Science Journal</i> , <b>2022</b> , 3, 9	2.9	
4	Insights into Planet Formation from Debris Disks: I. The Solar System as an Archetype for Planesimal Evolution. <i>Space Sciences Series of ISSI</i> , <b>2016</b> , 255-272	0.1	
3	Report on Three Stellar Occultations by the Excited Kuiper Belt Object 2002 MS4.. <i>Research Notes of the AAS</i> , <b>2022</b> , 6, 59	0.8	



2	Navigation and Orbit Estimation for New Horizons/Arrokoth Flyby: Overview, Results and Lessons Learned. <i>Space Science Reviews</i> , <b>2022</b> , 218, 1	7·5
1	2018 August 15 stellar occultation by minor planet (134340) Pluto. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2022</b> , 511, 5550-5559	4·3