John J Kavelaars

List of Publications by Year in Descending Order

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	Col-OSSOS: Probing Ice Line/Color Transitions within the Kuiper Belt's Progenitor Populations. *Planetary Science Journal*, **2022**, 3, 9	2.9	
126	Orbits and Occultation Opportunities of 15 TNOs Observed by New Horizons. *Planetary Science Journal*, **2022**, 3, 23	2.9	1
125	FOSSIL. II. The Rotation Periods of Small-sized Hilda Asteroids. *Astrophysical Journal, Supplement Series*, **2022**, 259, 7	8	1
124	Anomalous Flux in the Cosmic Optical Background Detected with New Horizons Observations. *Astrophysical Journal Letters*, **2022**, 927, L8	7.9	1
123	Report on Three Stellar Occultations by the Excited Kuiper Belt Object 2002 MS4.. *Research Notes of the AAS*, **2022**, 6, 59	0.8	
122	Navigation and Orbit Estimation for New Horizons' Arrokoth Flyby: Overview, Results and Lessons Learned. *Space Science Reviews*, **2022**, 218, 1	7.5	
121	2018 August 15 stellar occultation by minor planet (134340) Pluto. *Monthly Notices of the Royal Astronomical Society*, **2022**, 511, 5550-5559	4.3	
120	The Diverse Shapes of Dwarf Planet and Large KBO Phase Curves Observed from New Horizons. *Planetary Science Journal*, **2022**, 3, 95	2.9	0
119	A Predicted Dearth of Majority Hypervolatile Ices in Oort Cloud Comets. *Planetary Science Journal*, **2022**, 3, 112	2.9	1
118	OSSOS XXV: Large Populations and Scattering Sticking in the Distant Trans-Neptunian Resonances. *Planetary Science Journal*, **2022**, 3, 113	2.9	0
117	OSSOS. XXIII. 2013 VZ70 and the Temporary Coorbitals of the Giant Planets. *Planetary Science Journal*, **2021**, 2, 212	2.9	1
116	OSSOS Finds an Exponential Cutoff in the Size Distribution of the Cold Classical Kuiper Belt. *Astrophysical Journal Letters*, **2021**, 920, L28	7.9	3
115	OSSOS. XXI. Collision Probabilities in the Edgeworth Kuiper Belt. *Astronomical Journal*, **2021**, 161, 195	4.9	6
114	On the origin & thermal stability of Arrokoth's and Pluto's ices. *Icarus*, **2021**, 356, 114072	3.8	15
113	Persephone: A Pluto-system Orbiter and Kuiper Belt Explorer. *Planetary Science Journal*, **2021**, 2, 75	2.9	4
112	An Astronomical Image Content-based Recommendation System Using Combined Deep Learning Models in a Fully Unsupervised Mode. *Astronomical Journal*, **2021**, 161, 227	4.9	2
111	Col-OSSOS: The Distinct Color Distribution of Single and Binary Cold Classical KBOs. *Planetary Science Journal*, **2021**, 2, 90	2.9	1

110	OSSOS: The eccentricity and inclination distributions of the stable neptunian Trojans. *Icarus*, **2021**, 361, 114391	3.8	3
109	OSSOS. XVII. An upper limit on the number of distant planetary objects in the Solar System. *Icarus*, **2021**, 356, 113793	3.8	2
108	The Sizes and Albedos of Centaurs 2014 YY49 and 2013 NL24 from Stellar Occultation Measurements by RECON. *Planetary Science Journal*, **2021**, 2, 22	2.9	1
107	The TAOS II Survey: Real-time Detection and Characterization of Occultation Events. *Publications of the Astronomical Society of the Pacific*, **2021**, 133, 034503	5	1
106	FOSSIL. I. The Spin Rate Limit of Jupiter Trojans. *Planetary Science Journal*, **2021**, 2, 191	2.9	1
105	New Horizons Observations of the Cosmic Optical Background. *Astrophysical Journal*, **2021**, 906, 77	4.7	10
104	Assessment of Astronomical Images Using Combined Machine-learning Models. *Astronomical Journal*, **2020**, 159, 170	4.9	3
103	Size and Shape Constraints of (486958) Arrokoth from Stellar Occultations. *Astronomical Journal*, **2020**, 159, 130	4.9	17
102	Color, composition, and thermal environment of Kuiper Belt object (486958) Arrokoth. *Science*, **2020**, 367,	33.3	35
101	The geology and geophysics of Kuiper Belt object (486958) Arrokoth. *Science*, **2020**, 367,	33.3	43
100	The solar nebula origin of (486958) Arrokoth, a primordial contact binary in the Kuiper Belt. *Science*, **2020**, 367,	33.3	40
99	A Single-chord Stellar Occultation by the Extreme Trans-Neptunian Object (541132) Lele□□onua. *Astronomical Journal*, **2020**, 159, 230	4.9	4
98	OSSOS XX: The Meaning of Kuiper Belt Colors. *Astronomical Journal*, **2020**, 160, 46	4.9	12
97	Col-OSSOS: Compositional Homogeneity of Three Kuiper Belt Binaries. *Planetary Science Journal*, **2020**, 1, 16	2.9	6
96	Stellar Occultation by the Resonant Trans-Neptunian Object (523764) 2014 WC510 Reveals a Close Binary TNO. *Planetary Science Journal*, **2020**, 1, 48	2.9	4
95	Perspectives on the distribution of orbits of distant Trans-Neptunian objects **2020**, 61-77		8
94	A dearth of small members in the Haumea family revealed by OSSOS. *Nature Astronomy*, **2020**, 4, 89-96	12.1	3
93	OSSOS. XII. Variability Studies of 65 Trans-Neptunian Objects Using the Hyper Suprime-Cam. *Astrophysical Journal, Supplement Series*, **2019**, 244, 19	8	3

92	Initial results from the New Horizons exploration of 2014 MU, a small Kuiper Belt object. *Science*, **2019**, 364,	33.3	80
91	Col-OSSOS: Color and Inclination Are Correlated throughout the Kuiper Belt. *Astronomical Journal*, **2019**, 157, 94	4.9	18
90	Occultations by Small Non-spherical Trans-Neptunian Objects. I. A New Event Simulator for TAOS II. *Publications of the Astronomical Society of the Pacific*, **2019**, 131, 064401	5	2
89	Impact craters on Pluto and Charon indicate a deficit of small Kuiper belt objects. *Science*, **2019**, 363, 955-959	33.3	77
88	Crater Density Predictions for New Horizons Flyby Target 2014 MU69. *Astrophysical Journal Letters*, **2019**, 872, L5	7.9	19
87	Col-OSSOS: The Colors of the Outer Solar System Origins Survey. *Astrophysical Journal, Supplement Series*, **2019**, 243, 12	8	22
86	OSSOS. XIX. Testing Early Solar System Dynamical Models Using OSSOS Centaur Detections. *Astronomical Journal*, **2019**, 158, 132	4.9	11
85	OSSOS. XVIII. Constraining Migration Models with the 2:1 Resonance Using the Outer Solar System Origins Survey. *Astronomical Journal*, **2019**, 158, 214	4.9	5
84	OSSOS. XIV. The Plane of the Kuiper Belt. *Astronomical Journal*, **2019**, 158, 49	4.9	7
83	Phase Curves from the Kuiper Belt: Photometric Properties of Distant Kuiper Belt Objects Observed by New Horizons. *Astronomical Journal*, **2019**, 158, 123	4.9	10
82	OSSOS. XIII. Fossilized Resonant Dropouts Tentatively Confirm Neptune's Migration Was Grainy and Slow. *Astronomical Journal*, **2019**, 157, 253	4.9	12
81	The color and binarity of (486958) 2014 MU69 and other long-range New Horizons Kuiper Belt targets. *Icarus*, **2019**, 334, 22-29	3.8	8
80	OSSOS. *Astronomy and Astrophysics*, **2019**, 621, A102	5.1	7
79	OSSOS: X. How to Use a Survey Simulator: Statistical Testing of Dynamical Models Against the Real Kuiper Belt. *Frontiers in Astronomy and Space Sciences*, **2018**, 5,	3.8	31
78	OSSOS. IX. Two Objects in Neptune's 9:1 Resonance: Implications for Resonance Sticking in the Scattering Population. *Astronomical Journal*, **2018**, 155, 260	4.9	21
77	OSSOS. VII. 800+ Trans-Neptunian Objects: The Complete Data Release. *Astrophysical Journal, Supplement Series*, **2018**, 236, 18	8	71
76	High-precision Orbit Fitting and Uncertainty Analysis of (486958) 2014 MU69. *Astronomical Journal*, **2018**, 156, 20	4.9	34
75	OSSOS. VIII. The Transition between Two Size Distribution Slopes in the Scattering Disk. *Astronomical Journal*, **2018**, 155, 197	4.9	38

74	CONSEQUENCES OF A DISTANT MASSIVE PLANET ON THE LARGE SEMIMAJOR AXIS TRANS-NEPTUNIAN OBJECTS. *Astronomical Journal*, **2017**, 153, 63	4.9	44
73	The Structure of the Distant Kuiper Belt in a Nice Model Scenario. *Astronomical Journal*, **2017**, 153, 127	4.9	29
72	The Canada–France Ecliptic Plane Survey (CFEPS) High-latitude Component. *Astronomical Journal*, **2017**, 153, 236	4.9	38
71	OSSOS. V. Diffusion in the Orbit of a High-perihelion Distant Solar System Object. *Astronomical Journal*, **2017**, 153, 262	4.9	30
70	All planetesimals born near the Kuiper belt formed as binaries. *Nature Astronomy*, **2017**, 1,	12.1	47
69	OBSERVATIONAL SIGNATURES OF A MASSIVE DISTANT PLANET ON THE SCATTERING DISK. *Astronomical Journal*, **2017**, 153, 33	4.9	24
68	OSSOS. VI. Striking Biases in the Detection of Large Semimajor Axis Trans-Neptunian Objects. *Astronomical Journal*, **2017**, 154, 50	4.9	45
67	Col-OSSOS: Colors of the Interstellar Planetesimal 1I/'Oumuamua. *Astrophysical Journal Letters*, **2017**, 851, L38	7.9	75
66	Col-OSSOS:z-Band Photometry Reveals Three Distinct TNO Surface Types. *Astronomical Journal*, **2017**, 154, 101	4.9	37
65	SONS: The JCMT legacy survey of debris discs in the submillimetre. *Monthly Notices of the Royal Astronomical Society*, **2017**, 470, 3606-3663	4.3	83
64	The Trans-Neptunian Automated Occultation Survey (TAOS II). *Proceedings of the International Astronomical Union*, **2017**, 14, 193-196	0.1	
63	A CAREFULLY CHARACTERIZED AND TRACKED TRANS-NEPTUNIAN SURVEY: THE SIZE DISTRIBUTION OF THE PLUTINOS AND THE NUMBER OF NEPTUNIAN TROJANS. *Astronomical Journal*, **2016**, 152, 111	4.9	47
62	OSSOS III. RESONANT TRANS-NEPTUNIAN POPULATIONS: CONSTRAINTS FROM THE FIRST QUARTER OF THE OUTER SOLAR SYSTEM ORIGINS SURVEY. *Astronomical Journal*, **2016**, 152, 23	4.9	42
61	OSSOS. II. A SHARP TRANSITION IN THE ABSOLUTE MAGNITUDE DISTRIBUTION OF THE KUIPER BELT'S SCATTERING POPULATION. *Astronomical Journal*, **2016**, 151, 31	4.9	37
60	Insights into Planet Formation from Debris Disks: I. The Solar System as an Archetype for Planetesimal Evolution. *Space Sciences Series of ISSI*, **2016**, 255-272	0.1	
59	TRIPPy: TRAILED IMAGE PHOTOMETRY IN PYTHON. *Astronomical Journal*, **2016**, 151, 158	4.9	21
58	OSSOS. IV. DISCOVERY OF A DWARF PLANET CANDIDATE IN THE 9:2 RESONANCE WITH NEPTUNE. *Astronomical Journal*, **2016**, 152, 212	4.9	16
57	Insights into Planet Formation from Debris Disks: I. The Solar System as an Archetype for Planetesimal Evolution. *Space Science Reviews*, **2016**, 205, 213-230	7.5	27

56	THE OUTER SOLAR SYSTEM ORIGINS SURVEY. I. DESIGN AND FIRST-QUARTER DISCOVERIES. *Astronomical Journal*, **2016**, 152, 70	4.9	84
55	Solar System Object Image Search: A precovery search engine. *Proceedings of the International Astronomical Union*, **2015**, 10, 270-273	0.1	
54	THE 5:1 NEPTUNE RESONANCE AS PROBED BY CFEPS: DYNAMICS AND POPULATION. *Astronomical Journal*, **2015**, 149, 202	4.9	26
53	Alignment in star-debris disc systems seen by Herschel. *Monthly Notices of the Royal Astronomical Society: Letters*, **2014**, 438, L31-L35	4.3	60
52	THE NEXT GENERATION VIRGO CLUSTER SURVEY. XV. THE PHOTOMETRIC REDSHIFT ESTIMATION FOR BACKGROUND SOURCES. *Astrophysical Journal*, **2014**, 797, 102	4.7	25
51	Kuiper Belt Occultation Predictions. *Publications of the Astronomical Society of the Pacific*, **2013**, 125, 1000-1014	5	5
50	ON A POSSIBLE SIZE/COLOR RELATIONSHIP IN THE KUIPER BELT. *Astronomical Journal*, **2013**, 146, 75	4.9	2
49	2011 HM102: DISCOVERY OF A HIGH-INCLINATION L5 NEPTUNE TROJAN IN THE SEARCH FOR A POST-PLUTO NEW HORIZONS TARGET. *Astronomical Journal*, **2013**, 145, 96	4.9	20
48	Resolved debris discs around A stars in the Herschel DEBRIS survey. *Monthly Notices of the Royal Astronomical Society*, **2013**, 428, 1263-1280	4.3	132
47	A Uranian Trojan and the frequency of temporary giant-planet co-orbitals. *Science*, **2013**, 341, 994-7	33.3	52
46	DISCOVERY OF A NEW MEMBER OF THE INNER OORT CLOUD FROM THE NEXT GENERATION VIRGO CLUSTER SURVEY. *Astrophysical Journal Letters*, **2013**, 775, L8	7.9	19
45	LIMITS ON QUAOAR'S ATMOSPHERE. *Astrophysical Journal Letters*, **2013**, 774, L18	7.9	8
44	A POSSIBLE DIVOT IN THE SIZE DISTRIBUTION OF THE KUIPER BELT'S SCATTERING OBJECTS. *Astrophysical Journal Letters*, **2013**, 764, L2	7.9	46
43	THE DEBRIS DISK AROUND DORADUS RESOLVED WITHHERSCHEL. *Astrophysical Journal*, **2013**, 762, 52	4.7	16
42	Locating the Dust in A Star Debris Discs. *Proceedings of the International Astronomical Union*, **2013**, 8, 330-331	0.1	
41	Herschel imaging of 61 Vir: implications for the prevalence of debris in low-mass planetary systems. *Monthly Notices of the Royal Astronomical Society*, **2012**, 424, 1206-1223	4.3	94
40	SSOS: A Moving-Object Image Search Tool for Asteroid Precovery. *Publications of the Astronomical Society of the Pacific*, **2012**, 124, 579-585	5	55
39	COLLISIONAL EVOLUTION OF ULTRA-WIDE TRANS-NEPTUNIAN BINARIES. *Astrophysical Journal*, **2012**, 744, 139	4.7	46

38	THE RESONANT TRANS-NEPTUNIAN POPULATIONS. *Astronomical Journal*, **2012**, 144, 23	4.9	105
37	THE NEXT GENERATION VIRGO CLUSTER SURVEY (NGVS). I. INTRODUCTION TO THE SURVEY. *Astrophysical Journal, Supplement Series*, **2012**, 200, 4	8	261
36	Introduction to the CFHT Legacy Survey final release (CFHTLS T0007) **2012**,		21
35	A DEBRIS disk around the planet hosting M-star GJ 581 spatially resolved withHerschel. *Astronomy and Astrophysics*, **2012**, 548, A86	5.1	60
34	ON THE FORMATION LOCATION OF URANUS AND NEPTUNE AS CONSTRAINED BY DYNAMICAL AND CHEMICAL MODELS OF COMETS. *Astrophysical Journal Letters*, **2011**, 734, L30	7.9	37
33	CHARACTERIZATION OF SEVEN ULTRA-WIDE TRANS-NEPTUNIAN BINARIES. *Astrophysical Journal*, **2011**, 743, 1	4.7	67
32	THE CANADA-FRANCE ECLIPTIC PLANE SURVEY: FULL DATA RELEASE: THE ORBITAL STRUCTURE OF THE KUIPER BELT. *Astronomical Journal*, **2011**, 142, 131	4.9	171
31	A new analysis of the short-duration, hard-spectrum GRB 051103, a possible extragalactic soft gamma repeater giant flare. *Monthly Notices of the Royal Astronomical Society*, **2010**, 403, 342-352	4.3	37
30	DESTRUCTION OF BINARY MINOR PLANETS DURING NEPTUNE SCATTERING. *Astrophysical Journal Letters*, **2010**, 722, L204-L208	7.9	85
29	SYSTEMATIC BIASES IN THE OBSERVED DISTRIBUTION OF KUIPER BELT OBJECT ORBITS. *Astronomical Journal*, **2010**, 139, 2249-2257	4.9	14
28	Pencil-Beam Surveys for Trans-Neptunian Objects: Novel Methods for Optimization and Characterization. *Publications of the Astronomical Society of the Pacific*, **2010**, 122, 549-559	5	16
27	On the Detection of Two New Trans-Neptunian Binaries from the CFEPS Kuiper Belt Survey. *Publications of the Astronomical Society of the Pacific*, **2010**, 122, 1030-1034	5	10
26	Pencil-beam surveys for trans-neptunian objects: Limits on distant populations. *Icarus*, **2010**, 209, 766-774	3.8	4
25	KUIPER BELT OBJECT OCCULTATIONS: EXPECTED RATES, FALSE POSITIVES, AND SURVEY DESIGN. *Astronomical Journal*, **2009**, 137, 4270-4281	4.9	14
24	THE GLOBULAR CLUSTER SYSTEMS IN THE COMA ELLIPTICALS. IV: WFPC2 PHOTOMETRY FOR FIVE GIANT ELLIPTICALS ,. *Astronomical Journal*, **2009**, 137, 3314-3328	4.9	46
23	THE CANADA-FRANCE ECLIPTIC PLANE SURVEY: 3 DATA RELEASE: THE ORBITAL STRUCTURE OF THE KUIPER BELT. *Astronomical Journal*, **2009**, 137, 4917-4935	4.9	71
22	On the asteroid belt's orbital and size distribution. *Icarus*, **2009**, 202, 104-118	3.8	71
21	THE SIZE DISTRIBUTION OF KUIPER BELT OBJECTS FORD? 10 km. *Astronomical Journal*, **2009**, 137, 72-82	4.9	94

20	The extreme Kuiper Belt binary 2001 QW322. *Science*, **2008**, 322, 432-4	33.3	37
19	A SEARCH FOR SUB-km KUIPER BELT OBJECTS WITH THE METHOD OF SERENDIPITOUS STELLAR OCCULTATIONS. *Astronomical Journal*, **2008**, 135, 1039-1049	4.9	35
18	A derivation of the luminosity function of the Kuiper belt from a broken power-law size distribution. *Icarus*, **2008**, 198, 452-458	3.8	28
17	The Kuiper belt luminosity function from mR=21 to 26. *Icarus*, **2008**, 195, 827-843	3.8	75
16	The CFEPS Kuiper Belt Survey: Strategy and presurvey results. *Icarus*, **2006**, 185, 508-522	3.8	40
15	Globular Cluster Systems in Brightest Cluster Galaxies: Bimodal Metallicity Distributions and the Nature of the High-Luminosity Clusters. *Astrophysical Journal*, **2006**, 636, 90-114	4.7	174
14	Discovery of a Low-Eccentricity, High-Inclination Kuiper Belt Object at 58 AU. *Astrophysical Journal*, **2006**, 640, L83-L86	4.7	18
13	Exploration of the Kuiper Belt by High-Precision Photometric Stellar Occultations: First Results. *Astronomical Journal*, **2006**, 132, 819-822	4.9	43
12	The Kuiper Belt luminosity function from mR = 22 to 25. *Monthly Notices of the Royal Astronomical Society*, **2006**, 365, 429-438	4.3	49
11	Discovery of five irregular moons of Neptune. *Nature*, **2004**, 430, 865-7	50.4	69
10	A rotational light curve for the Kuiper belt object 1997 CV29. *Icarus*, **2004**, 167, 220-224	3.8	5
9	The discovery of faint irregular satellites of Uranus. *Icarus*, **2004**, 169, 474-481	3.8	33
8	The Short Rotation Period of Nereid. *Astrophysical Journal*, **2003**, 591, L71-L74	4.7	21
7	The Structure of the Kuiper Belt: Size Distribution and Radial Extent. *Astronomical Journal*, **2001**, 122, 1051-1066	4.9	173
6	Discovery of 12 satellites of Saturn exhibiting orbital clustering. *Nature*, **2001**, 412, 163-6	50.4	89
5	The Globular Cluster Systems in the Coma Ellipticals. I. The Luminosity Function in NGC 4874 and Implications for Hubble Constant. *Astrophysical Journal*, **2000**, 533, 125-136	4.7	30
4	The Globular Cluster Systems in the Coma Ellipticals. II. Metallicity Distribution and Radial Structure in NGC 4874 and Implications for Galaxy Formation. *Astrophysical Journal*, **2000**, 533, 137-148	4.7	26
3	Discovery of two distant irregular moons of Uranus. *Nature*, **1998**, 392, 897-899	50.4	62

2	Pencil-Beam Surveys for Faint Trans-Neptunian Objects. *Astronomical Journal*, **1998**, 116, 2042-2054	4.9	91
1	Kinematics and metallicities of globular clusters in M104. *Monthly Notices of the Royal Astronomical Society*, **1997**, 284, 376-384	4.3	25