

# Franck Marchis

## List of Publications by Year in descending order

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119  
papers

6,031  
citations

71102

41  
h-index

88630

70  
g-index

120  
all docs

120  
docs citations

120  
times ranked

3233  
citing authors

#	ARTICLE	IF	CITATIONS
1	First light of the Gemini Planet Imager. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12661-12666.	7.1	472
2	Discovery and spectroscopy of the young jovian planet 51 Eri b with the Gemini Planet Imager. Science, 2015, 350, 64-67.	12.6	459
3	The Subaru Coronagraphic Extreme Adaptive Optics System: Enabling High-Contrast Imaging on Solar-System Scales. Publications of the Astronomical Society of the Pacific, 2015, 127, 890-910.	3.1	279
4	The Gemini Planet Imager Exoplanet Survey: Giant Planet and Brown Dwarf Demographics from 10 to 100 au. Astronomical Journal, 2019, 158, 13.	4.7	270
5	POLARIMETRY WITH THE GEMINI PLANET IMAGER: METHODS, PERFORMANCE AT FIRST LIGHT, AND THE CIRCUMSTELLAR RING AROUND HR 4796A. Astrophysical Journal, 2015, 799, 182.	4.5	139
6	A low density of $0.8 \times 10^{-3} \text{ g cm}^{-3}$ for the Trojan binary asteroid 617 Patroclus. Nature, 2006, 439, 565-567	27.8	112
7	Characterizing 51 Eri b from 1 to $5 \frac{1}{4} \mu\text{m}$ : A Partly Cloudy Exoplanet. Astronomical Journal, 2017, 154, 10.	4.7	110
8	$\hat{\rho}^2$ PICTORIS <sup>TM</sup> INNER DISK IN POLARIZED LIGHT AND NEW ORBITAL PARAMETERS FOR $\hat{\rho}^2$ PICTORIS b. Astrophysical Journal, 2015, 811, 18.	4.5	108
9	Complex Spiral Structure in the HD 100546 Transitional Disk as Revealed by GPI and MagAO. Astronomical Journal, 2017, 153, 264.	4.7	99
10	Orbits for the Impatient: A Bayesian Rejection-sampling Method for Quickly Fitting the Orbits of Long-period Exoplanets. Astronomical Journal, 2017, 153, 229.	4.7	98
11	Improving and Assessing Planet Sensitivity of the GPI Exoplanet Survey with a Forward Model Matched Filter. Astrophysical Journal, 2017, 842, 14.	4.5	96
12	Discovery of the triple asteroidal system 87 Sylvia. Nature, 2005, 436, 822-824.	27.8	95
13	THE ORBIT AND TRANSIT PROSPECTS FOR $\hat{\rho}^2$ PICTORIS b CONSTRAINED WITH ONE MILLIARCSECOND ASTROMETRY. Astronomical Journal, 2016, 152, 97.	4.7	95
14	Dynamical Constraints on the HR 8799 Planets with GPI. Astronomical Journal, 2018, 156, 192.	4.7	95
15	$1 \text{--} 2.4 \hat{\rho}^2 \mu\text{m}$ Near-IR Spectrum of the Giant Planet $\hat{\rho}^2$ Pictoris b Obtained with the Gemini Planet Imager. Astronomical Journal, 2017, 153, 182.	4.7	92
16	Triplicity and physical characteristics of Asteroid (216) Kleopatra. Icarus, 2011, 211, 1022-1033.	2.5	91
17	Shape, size and multiplicity of main-belt asteroids. Keck Adaptive Optics survey. Icarus, 2006, 185, 39-63.	2.5	90
18	An Optical/Near-infrared Investigation of HD 100546 b with the Gemini Planet Imager and MagAO. Astronomical Journal, 2017, 153, 244.	4.7	81

#	ARTICLE	IF	CITATIONS
19	GEMINI PLANET IMAGER SPECTROSCOPY OF THE HR 8799 PLANETS c AND d. <i>Astrophysical Journal Letters</i> , 2014, 794, L15.	8.3	80
20	DIRECT IMAGING OF AN ASYMMETRIC DEBRIS DISK IN THE HD 106906 PLANETARY SYSTEM. <i>Astrophysical Journal</i> , 2015, 814, 32.	4.5	79
21	SPECTROSCOPIC CHARACTERIZATION OF HD 95086 b WITH THE GEMINI PLANET IMAGER. <i>Astrophysical Journal</i> , 2016, 824, 121.	4.5	78
22	ASTROMETRIC CONFIRMATION AND PRELIMINARY ORBITAL PARAMETERS OF THE YOUNG EXOPLANET 51 ERIDANI b WITH THE GEMINI PLANET IMAGER. <i>Astrophysical Journal Letters</i> , 2015, 814, L3.	8.3	77
23	Binary asteroid population. 3. Secondary rotations and elongations. <i>Icarus</i> , 2016, 267, 267-295.	2.5	76
24	High surface porosity as the origin of emissivity features in asteroid spectra. <i>Icarus</i> , 2012, 221, 1162-1172.	2.5	73
25	Gemini Planet Imager observational calibrations I: Overview of the GPI data reduction pipeline. <i>Proceedings of SPIE</i> , 2014, , .	0.8	70
26	New determination of the size and bulk density of the binary Asteroid 22 Kalliope from observations of mutual eclipses. <i>Icarus</i> , 2008, 196, 578-600.	2.5	69
27	Eclipsing binary Trojan asteroid Patroclus: Thermal inertia from Spitzer observations. <i>Icarus</i> , 2010, 205, 505-515.	2.5	68
28	Figure of the double Asteroid 90 Antiope from adaptive optics and lightcurve observations. <i>Icarus</i> , 2007, 187, 482-499.	2.5	67
29	Volumes and bulk densities of forty asteroids from ADAM shape modeling. <i>Astronomy and Astrophysics</i> , 2017, 601, A114.	5.1	67
30	Debris Disk Results from the Gemini Planet Imager Exoplanet Survey's Polarimetric Imaging Campaign. <i>Astronomical Journal</i> , 2020, 160, 24.	4.7	64
31	Main belt binary asteroidal systems with eccentric mutual orbits. <i>Icarus</i> , 2008, 195, 295-316.	2.5	62
32	THE FIRST $H$ -BAND SPECTRUM OF THE GIANT PLANET $\hat{P}$ PICTORIS b. <i>Astrophysical Journal Letters</i> , 2015, 798, L3.	8.3	61
33	DISCOVERY OF A SUBSTELLAR COMPANION TO THE NEARBY DEBRIS DISK HOST HR 2562. <i>Astrophysical Journal Letters</i> , 2016, 829, L4.	8.3	60
34	Main belt binary asteroidal systems with circular mutual orbits. <i>Icarus</i> , 2008, 196, 97-118.	2.5	58
35	Multiple asteroid systems: Dimensions and thermal properties from Spitzer Space Telescope and ground-based observations. <i>Icarus</i> , 2012, 221, 1130-1161.	2.5	56
36	CONSTRAINTS ON THE ARCHITECTURE OF THE HD 95086 PLANETARY SYSTEM WITH THE GEMINI PLANET IMAGER. <i>Astrophysical Journal Letters</i> , 2016, 822, L29.	8.3	55

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37	DIFFERENT ORIGINS OR DIFFERENT EVOLUTIONS? DECODING THE SPECTRAL DIVERSITY AMONG C-TYPE ASTEROIDS. <i>Astronomical Journal</i> , 2017, 153, 72.	4.7	55
38	THE PUZZLING MUTUAL ORBIT OF THE BINARY TROJAN ASTEROID (624) HEKTOR. <i>Astrophysical Journal Letters</i> , 2014, 783, L37.	8.3	54
39	FIRST SCATTERED-LIGHT IMAGE OF THE DEBRIS DISK AROUND HD 131835 WITH THE GEMINI PLANET IMAGER. <i>Astrophysical Journal Letters</i> , 2015, 815, L14.	8.3	54
40	Evidence That the Directly Imaged Planet HD 131399 Ab Is a Background Star. <i>Astronomical Journal</i> , 2017, 154, 218.	4.7	52
41	Sizes of main-belt asteroids by combining shape models and Keck adaptive optics observations. <i>Icarus</i> , 2013, 226, 1045-1057.	2.5	51
42	GPI Spectra of HR 8799 c, d, and e from 1.5 to 2.4 $\mu$ m with KLIP Forward Modeling. <i>Astronomical Journal</i> , 2018, 155, 226.	4.7	50
43	VLT/SPHERE imaging survey of the largest main-belt asteroids: Final results and synthesis. <i>Astronomy and Astrophysics</i> , 2021, 654, A56.	5.1	50
44	(16) Psyche: A mesosiderite-like asteroid?. <i>Astronomy and Astrophysics</i> , 2018, 619, L3.	5.1	46
45	Asteroid (21) Lutetia as a remnant of Earth's precursor planetesimals. <i>Icarus</i> , 2011, 216, 650-659.	2.5	45
46	Angular momentum of binary asteroids: Implications for their possible origin. <i>Icarus</i> , 2008, 193, 74-84.	2.5	43
47	Determination of binary asteroid orbits with a genetic-based algorithm. <i>Astronomy and Astrophysics</i> , 2012, 543, A68.	5.1	42
48	GEMINI PLANET IMAGER OBSERVATIONS OF THE AU MICROSCOPII DEBRIS DISK: ASYMMETRIES WITHIN ONE ARCSECOND. <i>Astrophysical Journal Letters</i> , 2015, 811, L19.	8.3	41
49	Physical modeling of triple near-Earth Asteroid (153591) 2001 SN263 from radar and optical light curve observations. <i>Icarus</i> , 2015, 248, 499-515.	2.5	39
50	A basin-free spherical shape as an outcome of a giant impact on asteroid Hygiea. <i>Nature Astronomy</i> , 2020, 4, 136-141.	10.1	38
51	Mass and density of Asteroid 121 Hermione from an analysis of its companion orbit. <i>Icarus</i> , 2005, 178, 450-464.	2.5	36
52	Gemini planet imager observational calibrations V: astrometry and distortion. <i>Proceedings of SPIE</i> , 2014, , .	0.8	34
53	An Exo-Kuiper Belt with an Extended Halo around HD 191089 in Scattered Light. <i>Astrophysical Journal</i> , 2019, 882, 64.	4.5	34
54	A three-dimensional solution for the orbit of the asteroidal satellite of 22 Kalliope. <i>Icarus</i> , 2003, 165, 112-120.	2.5	33

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55	BRINGING "THE MOTH" TO LIGHT: A PLANET-SCULPTING SCENARIO FOR THE HD 61005 DEBRIS DISK. <i>Astronomical Journal</i> , 2016, 152, 85.	4.7	33
56	Physical and dynamical properties of the main belt triple Asteroid (87) Sylvia. <i>Icarus</i> , 2014, 239, 118-130.	2.5	32
57	Utilizing Small Telescopes Operated by Citizen Scientists for Transiting Exoplanet Follow-up. <i>Publications of the Astronomical Society of the Pacific</i> , 2020, 132, 054401.	3.1	31
58	New insights on the binary Asteroid 121 Hermione. <i>Icarus</i> , 2009, 203, 88-101.	2.5	30
59	A dynamical solution of the triple asteroid system (45) Eugenia. <i>Icarus</i> , 2010, 210, 635-643.	2.5	29
60	Composition, mineralogy, and porosity of multiple asteroid systems from visible and near-infrared spectral data. <i>Icarus</i> , 2015, 247, 53-70.	2.5	29
61	The impact crater at the origin of the Julia family detected with VLT/SPHERE?. <i>Astronomy and Astrophysics</i> , 2018, 618, A154.	5.1	29
62	The Gemini Planet Imager Exoplanet Survey: Dynamical Mass of the Exoplanet $\beta$ Pictoris b from Combined Direct Imaging and Astrometry. <i>Astronomical Journal</i> , 2020, 159, 71.	4.7	29
63	Multiband GPI Imaging of the HR 4796A Debris Disk. <i>Astrophysical Journal</i> , 2020, 898, 55.	4.5	29
64	DYNAMICAL MASS MEASUREMENT OF THE YOUNG SPECTROSCOPIC BINARY V343 NORMAE AaAb RESOLVED WITH THE GEMINI PLANET IMAGER. <i>Astronomical Journal</i> , 2016, 152, 175.	4.7	28
65	Direct Imaging of the HD 35841 Debris Disk: A Polarized Dust Ring from Gemini Planet Imager and an Outer Halo from HST/STIS. <i>Astronomical Journal</i> , 2018, 156, 47.	4.7	28
66	THE PECULIAR DEBRIS DISK OF HD 111520 AS RESOLVED BY THE GEMINI PLANET IMAGER. <i>Astrophysical Journal</i> , 2016, 826, 147.	4.5	27
67	The violent collisional history of aqueously evolved (2) Pallas. <i>Nature Astronomy</i> , 2020, 4, 569-576.	10.1	26
68	POINT SOURCE POLARIMETRY WITH THE GEMINI PLANET IMAGER: SENSITIVITY CHARACTERIZATION WITH T5.5 DWARF COMPANION HD 19467 B. <i>Astrophysical Journal</i> , 2016, 820, 111.	4.5	25
69	Homogeneous internal structure of CM-like asteroid (41) Daphne. <i>Astronomy and Astrophysics</i> , 2019, 623, A132.	5.1	25
70	Asteroid (16) Psyche's primordial shape: A possible Jacobi ellipsoid. <i>Astronomy and Astrophysics</i> , 2020, 638, L15.	5.1	25
71	Asteroids and the James Webb Space Telescope. <i>Publications of the Astronomical Society of the Pacific</i> , 2016, 128, 018003.	3.1	23
72	EXTREME AO OBSERVATIONS OF TWO TRIPLE ASTEROID SYSTEMS WITH SPHERE. <i>Astrophysical Journal Letters</i> , 2016, 820, L35.	8.3	22

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73	THE PDS 66 CIRCUMSTELLAR DISK AS SEEN IN POLARIZED LIGHT WITH THE GEMINI PLANET IMAGER. <i>Astrophysical Journal Letters</i> , 2016, 818, L15.	8.3	22
74	Multiband Polarimetric Imaging of HR 4796A with the Gemini Planet Imager. <i>Astronomical Journal</i> , 2020, 160, 79.	4.7	22
75	A giant crater on 90 Antiope?. <i>Icarus</i> , 2009, 203, 102-111.	2.5	21
76	Characteristics and large bulk density of the C-type main-belt triple asteroid (93) Minerva. <i>Icarus</i> , 2013, 224, 178-191.	2.5	20
77	Physical, spectral, and dynamical properties of asteroid (107) Camilla and its satellites. <i>Icarus</i> , 2018, 309, 134-161.	2.5	20
78	Closing the gap between Earth-based and interplanetary mission observations: Vesta seen by VLT/SPHERE. <i>Astronomy and Astrophysics</i> , 2019, 623, A6.	5.1	20
79	(216) Kleopatra, a low density critically rotating M-type asteroid. <i>Astronomy and Astrophysics</i> , 2021, 653, A57.	5.1	20
80	Gemini Planet Imager observational calibrations XI: pipeline improvements and enhanced calibrations after two years on sky. <i>Proceedings of SPIE</i> , 2016, , .	0.8	19
81	IMAGING AN 80 au RADIUS DUST RING AROUND THE F5V STAR HD 157587. <i>Astronomical Journal</i> , 2016, 152, 128.	4.7	19
82	The Gemini Planet Imager View of the HD 32297 Debris Disk. <i>Astronomical Journal</i> , 2020, 159, 251.	4.7	19
83	The TESS-Keck Survey. VIII. Confirmation of a Transiting Giant Planet on an Eccentric 261 Day Orbit with the Automated Planet Finder Telescope*. <i>Astronomical Journal</i> , 2022, 163, 61.	4.7	19
84	Titan imagery with Keck adaptive optics during and after probe entry. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	18
85	Nature of the small main belt Asteroid 3169 Ostro. <i>Icarus</i> , 2007, 189, 362-369.	2.5	18
86	Shape model of asteroid (130) Elektra from optical photometry and disk-resolved images from VLT/SPHERE and Nirc2/Keck. <i>Astronomy and Astrophysics</i> , 2017, 599, A36.	5.1	18
87	Automated data processing architecture for the Gemini Planet Imager Exoplanet Survey. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2018, 4, 1.	1.8	18
88	Component-resolved near-infrared spectra of the (22) Kalliope system. <i>Icarus</i> , 2009, 204, 574-579.	2.5	16
89	Multiple asteroid systems (45) Eugenia and (87) Sylvia: Sensitivity to external and internal perturbations. <i>Icarus</i> , 2014, 241, 13-25.	2.5	16
90	An Updated Visual Orbit of the Directly Imaged Exoplanet 51 Eridani b and Prospects for a Dynamical Mass Measurement with Gaia. <i>Astronomical Journal</i> , 2020, 159, 1.	4.7	16

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91	Binary asteroid (31) Euphrosyne: ice-rich and nearly spherical. <i>Astronomy and Astrophysics</i> , 2020, 641, A80.	5.1	16
92	Gemini Planet Imager Spectroscopy of the Dusty Substellar Companion HD 206893 B. <i>Astronomical Journal</i> , 2021, 161, 5.	4.7	16
93	Integral Field Spectroscopy of the Low-mass Companion HD 984 B with the Gemini Planet Imager. <i>Astronomical Journal</i> , 2017, 153, 190.	4.7	15
94	Physical characterization of double asteroid (617) Patroclus from 2007/2012 mutual events observations. <i>Icarus</i> , 2020, 352, 113990.	2.5	15
95	Revised astrometric calibration of the Gemini Planet Imager. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2020, 6, 1.	1.8	15
96	Occultation evidence for a satellite of the Trojan asteroid (911) Agamemnon. <i>Planetary and Space Science</i> , 2013, 87, 78-84.	1.7	14
97	The Gemini planet imager: first light and commissioning. <i>Proceedings of SPIE</i> , 2014, , .	0.8	14
98	(704) Interamnia: a transitional object between a dwarf planet and a typical irregular-shaped minor body. <i>Astronomy and Astrophysics</i> , 2020, 633, A65.	5.1	14
99	Giant Outer Transiting Exoplanet Mass (GOT-EM) Survey. II. Discovery of a Failed Hot Jupiter on a 2.7 Yr, Highly Eccentric Orbit*. <i>Astronomical Journal</i> , 2021, 162, 154.	4.7	14
100	A spectral comparison of (379) Huenna and its satellite. <i>Icarus</i> , 2011, 212, 677-681.	2.5	13
101	The origin of (90) Antiope from component-resolved near-infrared spectroscopy. <i>Icarus</i> , 2011, 213, 252-264.	2.5	12
102	The shape of (7) Iris as evidence of an ancient large impact?. <i>Astronomy and Astrophysics</i> , 2019, 624, A121.	5.1	12
103	Unistellar eVscopes: Smart, portable, and easy-to-use telescopes for exploration, interactive learning, and citizen astronomy. <i>Acta Astronautica</i> , 2020, 166, 23-28.	3.2	12
104	An advanced multipole model for (216) Kleopatra triple system. <i>Astronomy and Astrophysics</i> , 2021, 653, A56.	5.1	12
105	First Resolved Scattered-light Images of Four Debris Disks in Scorpius-Centaurus with the Gemini Planet Imager. <i>Astronomical Journal</i> , 2020, 159, 31.	4.7	12
106	Deconvolution of astronomical images obtained from ground-based telescopes with adaptive optics. , 2003, , .		11
107	Gemini planet imager observational calibrations II: detector performance and calibration. <i>Proceedings of SPIE</i> , 2014, , .	0.8	10
108	Spectral properties of (854) Frostia, (1333) Cevenola and (3623) Chaplin. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 415, 587-595.	4.4	9

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109	Imaging the 44 au Kuiper Belt Analog Debris Ring around HD 141569A with GPI Polarimetry. <i>Astronomical Journal</i> , 2020, 159, 53.	4.7	8
110	The hierarchical stability of the seven known large size ratio triple asteroids using the empirical stability parameters. <i>Astrophysics and Space Science</i> , 2014, 349, 677-680.	1.4	7
111	Size and Shape of (11351) Leucus from Five Occultations. <i>Planetary Science Journal</i> , 2021, 2, 202.	3.6	7
112	Gemini planet imager observational calibrations III: empirical measurement methods and applications of high-resolution microlens PSFs. <i>Proceedings of SPIE</i> , 2014, , .	0.8	6
113	Operation of a MOEMS Deformable Mirror in Cryo: Challenges and Results. <i>Micromachines</i> , 2017, 8, 233.	2.9	6
114	Asymmetries in adaptive optics point spread functions. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2019, 5, 1.	1.8	6
115	Test results for the Gemini Planet Imager data reduction pipeline. <i>Proceedings of SPIE</i> , 2012, , .	0.8	5
116	Detection of a Low-mass Stellar Companion to the Accelerating A2IV Star HR 1645. <i>Astronomical Journal</i> , 2019, 158, 226.	4.7	5
117	Performance of the Gemini Planet Imager Non-redundant Mask and Spectroscopy of Two Close-separation Binaries: HR 2690 and HD 142527. <i>Astronomical Journal</i> , 2019, 157, 249.	4.7	3
118	Quantitative solar system science with AO systems. , 2012, , .		2
119	HD 165054: An Astrometric Calibration Field for High-contrast Imagers in Baade's Window. <i>Astronomical Journal</i> , 2020, 159, 244.	4.7	1