SÃ©bastien Charnoz

List of Publications by Year
in descending order

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84
papers

3,994
citations

126907
33
h-index

133252
59
g-index

84
all docs

84
docs citations

84
times ranked

2858
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of Early Science observations with the CHaracterising ExOPlanets Satellite (<i>CHEOPS</i>) using<scp>pycheops</scp>. Monthly Notices of the Royal Astronomical Society, 2022, 514, 77-104.	4.4	38
2	Spi-OPS: <i>Spitzer</i> and CHEOPS confirm the near-polar orbit of MASCARA-1 b and reveal a hint of dayside reflection. Astronomy and Astrophysics, 2022, 658, A75.	5.1	25
3	A pair of sub-Neptunes transiting the bright K-dwarf TOI-1064 characterized with <i>CHEOPS</i>. Monthly Notices of the Royal Astronomical Society, 2022, 511, 1043-1071.	4.4	30
4	Contemporary formation of early Solar System planetesimals at two distinct radial locations. Nature Astronomy, 2022, 6, 72-79.	10.1	61
5	The Case for a New Frontiersâ€“Class Uranus Orbiter: System Science at an Underexplored and Unique World with a Mid-scale Mission. Planetary Science Journal, 2022, 3, 58.	3.6	12
6	The ESA Hera Mission: Detailed Characterization of the DART Impact Outcome and of the Binary Asteroid (65803) Didymos. Planetary Science Journal, 2022, 3, 160.	3.6	82
7	The CHEOPS mission. Experimental Astronomy, 2021, 51, 109-151.	3.7	140
8	Science Goals and Mission Objectives for the Future Exploration of Ice Giants Systems: A Horizon 2061 Perspective. Space Science Reviews, 2021, 217, 1.	8.1	11
9	Protoplanetary disk formation from the collapse of a prestellar core. Astronomy and Astrophysics, 2021, 648, A101.	5.1	24
10	The EBLM project â€“ VIII. First results for M-dwarf mass, radius, and effective temperature measurements using <i>CHEOPS</i> light curves. Monthly Notices of the Royal Astronomical Society, 2021, 506, 306-322.	4.4	15
11	Exploiting timing capabilities of the CHEOPS mission with warm-Jupiter planets. Monthly Notices of the Royal Astronomical Society, 2021, 506, 3810-3830.	4.4	18
12	Transit detection of the long-period volatile-rich super-Earth Î½2 Lupi d with CHEOPS. Nature Astronomy, 2021, 5, 775-787.	10.1	51
13	Quantitative estimates of impact induced crustal erosion during accretion and its influence on the Sm/Nd ratio of the Earth. Icarus, 2021, 363, 114412.	2.5	8
14	Tidal pull of the Earth strips the proto-Moon of its volatiles. Icarus, 2021, 364, 114451.	2.5	23
15	Forming pressure traps at the snow line to isolate isotopic reservoirs in the absence of a planet. Astronomy and Astrophysics, 2021, 652, A35.	5.1	13
16	Constraints on Planetesimal Accretion Inferred from Particle-size Distribution in CO Chondrites. Astrophysical Journal Letters, 2021, 917, L25.	8.3	13
17	MIRS: an imaging spectrometer for the MMX mission. Earth, Planets and Space, 2021, 73, .	2.5	13
18	Ice Giant Systems: The scientific potential of orbital missions to Uranus and Neptune. Planetary and Space Science, 2020, 191, 105030.	1.7	39

#	ARTICLE	IF	CITATIONS
19	The hot dayside and asymmetric transit of WASP-189 b seen by CHEOPS. Astronomy and Astrophysics, 2020, 643, A94.	5.1	61
20	Planetesimal formation in an evolving protoplanetary disk with a dead zone. Astronomy and Astrophysics, 2019, 627, A50.	5.1	19
21	Fingerprints of the Protosolar Cloud Collapse in the Solar System. I. Distribution of Presolar Short-lived ²⁶Al. Astrophysical Journal, 2019, 884, 31.	4.5	11
22	Fingerprints of the Protosolar Cloud Collapse in the Solar System. II. Nucleosynthetic Anomalies in Meteorites. Astrophysical Journal, 2019, 884, 32.	4.5	31
23	Tin isotopes indicative of liquidâ€“vapour equilibration and separation in the Moon-forming disk. Nature Geoscience, 2019, 12, 707-711.	12.9	39
24	Formation of rocky and icy planetesimals inside and outside the snow line: effects of diffusion, sublimation, and back-reaction. Astronomy and Astrophysics, 2019, 629, A90.	5.1	31
25	Formation of the Cassini Division â€“ II. Possible histories of Mimas and Enceladus. Monthly Notices of the Royal Astronomical Society, 2019, 486, 2947-2963.	4.4	7
26	Formation of the Cassini Division â€“ I. Shaping the rings by Mimas inward migration. Monthly Notices of the Royal Astronomical Society, 2019, 486, 2933-2946.	4.4	8
27	Fingerprints of the protosolar cloud collapse in the Solar System: Refractory inclusions distribution and isotopic anomalies in meteorites. Proceedings of the International Astronomical Union, 2019, 15, 100-102.	0.0	0
28	Are Saturnâ€™s rings actually young?. Nature Astronomy, 2019, 3, 967-970.	10.1	25
29	On the Impact Origin of Phobos and Deimos. III. Resulting Composition from Different Impactors. Astrophysical Journal, 2018, 853, 118.	4.5	16
30	Scientific rationale for Uranus and Neptune in situ explorations. Planetary and Space Science, 2018, 155, 12-40.	1.7	69
31	Making the Planetary Material Diversity during the Early Assembling of the Solar System. Astrophysical Journal Letters, 2018, 867, L23.	8.3	38
32	Exoplanet recycling in massive white-dwarf debris discs. Monthly Notices of the Royal Astronomical Society, 2018, 480, 2784-2812.	4.4	31
33	Rings in the Solar System: A Short Review. , 2018, , 375-394.		1
34	The first 200 kyr of the Solar System: making the planetary material diversity. Proceedings of the International Astronomical Union, 2018, 14, 137-140.	0.0	0
35	High-temperature Ionization-induced Synthesis of Biologically Relevant Molecules in the Protosolar Nebula. Astrophysical Journal, 2018, 859, 142.	4.5	12
36	Rings in the Solar System: A Short Review. , 2018, , 1-20.		2

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37	On the Impact Origin of Phobos and Deimos. IV. Volatile Depletion. Astrophysical Journal, 2018, 860, 150.	4.5	18
38	On the Impact Origin of Phobos and Deimos. I. Thermodynamic and Physical Aspects. Astrophysical Journal, 2017, 845, 125.	4.5	52
39	Dynamical Evolution of the Debris Disk after a Satellite Catastrophic Disruption around Saturn. Astronomical Journal, 2017, 154, 34.	4.7	43
40	Ring formation around giant planets by tidal disruption of a single passing large Kuiper belt object. Icarus, 2017, 282, 195-213.	2.5	61
41	On the Impact Origin of Phobos and Deimos. II. True Polar Wander and Disk Evolution. Astrophysical Journal, 2017, 851, 122.	4.5	41
42	Accretion of Phobos and Deimos in an extended debris disc stirred by transient moons. Nature Geoscience, 2016, 9, 581-583.	12.9	91
43	Trapping planets in an evolving protoplanetary disk: preferred time, locations, and planet mass. Astronomy and Astrophysics, 2016, 590, A60.	5.1	22
44	FORMATION OF CENTAURSâ€™ RINGS THROUGH THEIR PARTIAL TIDAL DISRUPTION DURING PLANETARY ENCOUNTERS. Astrophysical Journal Letters, 2016, 828, L8.	8.3	50
45	The origin of the neon isotopes in chondrites and on Earth. Earth and Planetary Science Letters, 2016, 433, 249-256.	4.4	33
46	Evolution of the protolunar disk: Dynamics, cooling timescale and implantation of volatiles onto the Earth. Icarus, 2015, 260, 440-463.	2.5	44
47	The EChO science case. Experimental Astronomy, 2015, 40, 329-391.	3.7	31
48	Growth of calciumâ€“aluminum-rich inclusions by coagulation and fragmentation in a turbulent protoplanetary disk: Observations and simulations. Icarus, 2015, 252, 440-453.	2.5	17
49	Constraints on Mimasâ€™ interior from Cassini ISS libration measurements. Science, 2014, 346, 322-324.	12.6	65
50	TIME EVOLUTION OF A VISCOUS PROTOPLANETARY DISK WITH A FREE GEOMETRY: TOWARD A MORE SELF-CONSISTENT PICTURE. Astrophysical Journal, 2014, 786, 35.	4.5	36
51	Neptune and Triton: Essential pieces of the Solar System puzzle. Planetary and Space Science, 2014, 104, 108-121.	1.7	34
52	Complex satellite systems: a general model of formation from rings. Proceedings of the International Astronomical Union, 2014, 9, 182-189.	0.0	5
53	The opposition effect in Saturnâ€™s main rings as seen by Cassini ISS: 1. Morphology of phase functions and dependence on the local optical depth. Icarus, 2013, 226, 591-603.	2.5	14
54	LIDT-DD: A New Self-Consistent Debris Disc Model Including Radiation Pressure and Coupling Dynamical and Collisional Evolution. Proceedings of the International Astronomical Union, 2013, 8, 346-347.	0.0	0

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55	Protoplanetary Disk Evolution and Influence of the Host Star. Proceedings of the International Astronomical Union, 2013, 8, 374-375.	0.0	0
56	STRONG TIDAL DISSIPATION IN SATURN AND CONSTRAINTS ON ENCELADUS' THERMAL STATE FROM ASTROMETRY. Astrophysical Journal, 2012, 752, 14.	4.5	163
57	A METHOD FOR COUPLING DYNAMICAL AND COLLISIONAL EVOLUTION OF DUST IN CIRCUMSTELLAR DISKS: THE EFFECT OF A DEAD ZONE. Astrophysical Journal, 2012, 753, 119.	4.5	39
58	Formation of Regular Satellites from Ancient Massive Rings in the Solar System. Science, 2012, 338, 1196-1199.	12.6	138
59	On the formation of the martian moons from a circum-martian accretion disk. Icarus, 2012, 221, 806-815.	2.5	37
60	THREE-DIMENSIONAL LAGRANGIAN TURBULENT DIFFUSION OF DUST GRAINS IN A PROTOPLANETARY DISK: METHOD AND FIRST APPLICATIONS. Astrophysical Journal, 2011, 737, 33.	4.5	38
61	Accretion of Saturnâ€™s mid-sized moons during the viscous spreading of young massive rings: Solving the paradox of silicate-poor rings versus silicate-rich moons. Icarus, 2011, 216, 535-550.	2.5	123
62	In-flight calibration of the Cassini imaging science sub-system cameras. Planetary and Space Science, 2010, 58, 1475-1488.	1.7	60
63	Deciphering the origin of the regular satellites of gaseous giants â€“ Iapetus: The Rosetta ice-moon. Icarus, 2010, 207, 448-460.	2.5	20
64	Long-term and large-scale viscous evolution of dense planetary rings. Icarus, 2010, 209, 771-785.	2.5	67
65	The recent formation of Saturn's moonlets from viscous spreading of the main rings. Nature, 2010, 465, 752-754.	27.8	114
66	Recipe for making Saturn's rings. Nature, 2010, 468, 903-905.	27.8	11
67	MIGRATION OF A MOONLET IN A RING OF SOLID PARTICLES: THEORY AND APPLICATION TO SATURN'S PROPELLERS. Astronomical Journal, 2010, 140, 944-953.	4.7	44
68	An Evolving View of Saturnâ€™s Dynamic Rings. Science, 2010, 327, 1470-1475.	12.6	127
69	An introduction to the Kuiper Belt dynamics and collisional evolution. EAS Publications Series, 2010, 41, 367-377.	0.3	0
70	Physical collisions of moonlets and clumps with the Saturn's F-ring core. Icarus, 2009, 201, 191-197.	2.5	23
71	Kronos: exploring the depths of Saturn with probes and remote sensing through an international mission. Experimental Astronomy, 2009, 23, 947-976.	3.7	10
72	Did Saturn's rings form during the Late Heavy Bombardment?. Icarus, 2009, 199, 413-428.	2.5	107

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73	The opposition effect in the outer Solar system: A comparative study of the phase function morphology. Planetary and Space Science, 2009, 57, 1282-1301.	1.7	13
74	Spinning particles in Saturn's C ring from mid-infrared observations: Pre-Cassini mission results. Icarus, 2008, 196, 625-641.	2.5	17
75	The determination of the structure of Saturnâ€™s F ring by nearby moonlets. Nature, 2008, 453, 739-744.	27.8	67
76	The Equatorial Ridges of Pan and Atlas: Terminal Accretionary Ornaments?. Science, 2007, 318, 1622-1624.	12.6	50
77	Anatomy of a Flaring Proto-Planetary Disk Around a Young Intermediate-Mass Star. Science, 2006, 314, 621-623.	12.6	81
78	Imaging of Titan from the Cassini spacecraft. Nature, 2005, 434, 159-168.	27.8	390
79	Cassini Discovers a Kinematic Spiral Ring Around Saturn. Science, 2005, 310, 1300-1304.	12.6	49
80	Cassini Imaging Science: Initial Results on Saturn's Rings and Small Satellites. Science, 2005, 307, 1226-1236.	12.6	183
81	Cassini Imaging Science: Initial Results on Saturn's Atmosphere. Science, 2005, 307, 1243-1247.	12.6	107
82	Cassini Imaging Science: Initial Results on Phoebe and Iapetus. Science, 2005, 307, 1237-1242.	12.6	169
83	Coupling dynamical and collisional evolution of small bodies:. Icarus, 2003, 166, 141-156.	2.5	61
84	The Origin of Planetary Ring Systems. , 0, , 517-538.		12