Josep Maria Trigo RodrÃ-guez

List of Publications by Year
in descending order

133 papers	4,748 citations	126907 33 h-index	102487 66 g-index

151 all docs	151 docs citations	151 times ranked	3135 citing authors

#	Article	IF	Citations
1	Learning about comets from the study of mass distributions and fluxes of meteoroid streams. Monthly Notices of the Royal Astronomical Society, 2022, 512, 2277-2289.	4.4	11
2	The Risk Associated with Short-Period Comets and Its Origin. Impact Studies, 2022, , 61-77.	0.5	0
3	The Origin and Nature of Comets. Impact Studies, 2022, , 43-60.	0.5	0
4	Meteorite Parent Bodies and Their Routes to Earth. Impact Studies, 2022, , 21-41.	0.5	0
5	A Numerical Approach to Study Ablation of Large Bolides: Application to Chelyabinsk. Advances in Astronomy, 2021, 2021, 1-13.	1.1	3
6	Accurate 3D fireball trajectory and orbit calculation using the 3D-<scp>firetoc</scp> automatic Python code. Monthly Notices of the Royal Astronomical Society, 2021, 504, 4829-4840.	4.4	17
7	Luminous efficiency based on FRIPON meteors and limitations of ablation models. Astronomy and Astrophysics, 2021, 650, A159.	5.1	11
8	Study of Fischerâ€“Tropsch-type reactions on chondritic meteorites. Astronomy and Astrophysics, 2021, 650, A160.	5.1	11
9	Record of Alteration by Heavy Ices in a Cometary Clast in a Primitive Meteorite. Microscopy and Microanalysis, 2021, 27, 2268-2270.	0.4	0
10	The reflectance spectra of CVâ€“CK carbonaceous chondrites from the near-infrared to the visible. Monthly Notices of the Royal Astronomical Society, 2021, 507, 651-662.	4.4	1
11	Luminous efficiency of meteors derived from ablation model after assessment of its range of validity. Astronomy and Astrophysics, 2021, 652, A84.	5.1	5
12	Energy signature of ton TNT-class impacts: analysis of the 2018 December 22 fireball over Western Pyrenees. Monthly Notices of the Royal Astronomical Society, 2021, 508, 5716-5733.	4.4	2
13	Using fireball networks to track more frequent reentries: Falcon 9 upper-stage orbit determination from video recordings. Astrodynamics, 2021, 5, 347-358.	2.4	7
14	Physically based alternative to the PE criterion for meteoroids. Monthly Notices of the Royal Astronomical Society, 2020, 494, 316-324.	4.4	11
15	Evaluation of NEA deflection techniques. A fuzzy Multi-Criteria Decision Making analysis for planetary defense. Acta Astronautica, 2020, 176, 383-397.	3.2	9
16	Comparing the reflectivity of ungrouped carbonaceous chondrites with those of short-period comets like 2P/Encke. Astronomy and Astrophysics, 2020, 641, A58.	5.1	7
17	FRIPON: a worldwide network to track incoming meteoroids. Astronomy and Astrophysics, 2020, 644, A53.	5.1	58
18	Introducing Our New Chief Editor. Advances in Astronomy, 2020, 2020, 1-2.	1.1	0

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19	Reply to: GEMS and the devil in their details. Nature Astronomy, 2019, 3, 606-606.	10.1	2
20	New observations on highâ€pressure phases in a shock melt vein in the Villalbeto de la PeÃ±a meteorite: Insights into the shock behavior of diopside. Meteoritics and Planetary Science, 2019, 54, 2845-2863.	1.6	7
21	Interplanetary Dust, Meteoroids, Meteors and Meteorites. Space Science Reviews, 2019, 215, 1.	8.1	49
22	A cometary building block in a primitive asteroidal meteorite. Nature Astronomy, 2019, 3, 659-666.	10.1	73
23	Accretion of Water in Carbonaceous Chondrites: Current Evidence and Implications for the Delivery of Water to Early Earth. Space Science Reviews, 2019, 215, 1.	8.1	41
24	Mechanical properties of particles from the surface of asteroid 25143 Itokawa. Astronomy and Astrophysics, 2019, 629, A119.	5.1	25
25	Verification of the Flow Regimes Based on High-fidelity Observations of Bright Meteors. Astrophysical Journal, 2018, 863, 174.	4.5	14
26	Analysis of the September Îµ-Perseid outburst in 2013. Monthly Notices of the Royal Astronomical Society, 2018, 480, 2501-2507.	4.4	8
27	Nanoindenting the Chelyabinsk Meteorite to Learn about Impact Deflection Effects in asteroids. Astrophysical Journal, 2017, 835, 157.	4.5	16
28	Novel Experimental Simulations of the Atmospheric Injection of Meteoric Metals. Astrophysical Journal, 2017, 836, 212.	4.5	31
29	Annama H chondriteâ€”Mineralogy, physical properties, cosmic ray exposure, and parent body history. Meteoritics and Planetary Science, 2017, 52, 1525-1541.	1.6	22
30	Multi-instrumental observations of the 2014 Ursid meteor outburst. Monthly Notices of the Royal Astronomical Society, 2017, 468, 2206-2213.	4.4	4
31	Assessment and Mitigation of Asteroid Impact Hazards. Thirty Years of Astronomical Discovery With UKIRT, 2017, , .	0.3	5
32	Petrographic and geochemical evidence for multiphase formation of carbonates in the Martian orthopyroxenite Allan Hills 84001. Meteoritics and Planetary Science, 2017, 52, 1030-1047.	1.6	13
33	Interaction of organic compounds with chondritic silicate surfaces. Atomistic insights from quantum chemical periodic simulations. Physical Chemistry Chemical Physics, 2017, 19, 18217-18231.	2.8	7
34	Synthesis and characterisation of analogues for interplanetary dust and meteoric smoke particles. Journal of Atmospheric and Solar-Terrestrial Physics, 2017, 162, 178-191.	1.6	7
35	Natural Hazard Associated to Shock Waves of Meter-Sized Meteoroids. Thirty Years of Astronomical Discovery With UKIRT, 2017, , 199-218.	0.3	4
36	Chelyabinsk Meteorite as a Proxy for Studying the Properties of Potentially Hazardous Asteroids and Impact Deflection Strategies. Thirty Years of Astronomical Discovery With UKIRT, 2017, , 219-241.	0.3	5

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37	Dynamic Sources of Contemporary Hazard from Meteoroids and Small Asteroids. Thirty Years of Astronomical Discovery With UKIRT, 2017, , 11-32.	0.3	8
38	Asteroid Mining: Mineral Resources in Undifferentiated Bodies from the Chemical Composition of Carbonaceous Chondrites. Thirty Years of Astronomical Discovery With UKIRT, 2017, , 73-101.	0.3	8
39	Atomistic Simulations of Aqueous Alteration Processes of Mafic Silicates in Carbonaceous Chondrites. Thirty Years of Astronomical Discovery With UKIRT, 2017, , 103-127.	0.3	2
40	Asteroids, Comets and Meteorite-Dropping Bolides Studied from The Montsec Astronomical Observatory. Thirty Years of Astronomical Discovery With UKIRT, 2017, , 243-256.	0.3	0
41	THE COLLISIONAL EVOLUTION OF UNDIFFERENTIATED ASTEROIDS AND THE FORMATION OF CHONDRITIC METEOROIDS. Astrophysical Journal, 2016, 824, 12.	4.5	22
42	A plausible link between the asteroid 21 Lutetia and <scp>CH</scp> carbonaceous chondrites. Meteoritics and Planetary Science, 2016, 51, 1795-1812.	1.6	10
43	The key role of meteorites in the formation of relevant prebiotic molecules in a formamide/water environment. Scientific Reports, 2016, 6, 38888.	3.3	76
44	Observations of the Quadrantid meteor shower from 2008 to 2012: Orbits and emission spectra. Icarus, 2016, 275, 193-202.	2.5	7
45	Detection and measurement of micrometeoroids with LISA Pathfinder. Astronomy and Astrophysics, 2016, 586, A107.	5.1	10
46	New methodology to determine the terminal height of a fireball. Icarus, 2015, 250, 544-552.	2.5	24
47	Orbit and dynamic origin of the recently recovered Annama's H5 chondrite. Monthly Notices of the Royal Astronomical Society, 2015, 449, 2119-2127.	4.4	43
48	Aqueous alteration in chondritic asteroids and comets from the study of carbonaceous chondrites. , 2015, , .		6
49	Near-Earth object 2012XJ112 as a source of bright bolides of achondritic nature. Monthly Notices of the Royal Astronomical Society, 2014, 439, 3704-3711.	4.4	10
50	Bright fireballs associated with the potentially hazardous asteroid 2007LQ19. Monthly Notices of the Royal Astronomical Society, 2014, 443, 1643-1650.	4.4	8
51	The ArdÃ³n L6 ordinary chondrite: A longâ€hidden Spanish meteorite fall. Meteoritics and Planetary Science, 2014, 49, 1475-1484.	1.6	3
52	Orbits and emission spectra from the 2014 Camelopardalids. Monthly Notices of the Royal Astronomical Society, 2014, 445, 3309-3314.	4.4	12
53	UV to far-IR reflectance spectra of carbonaceous chondrites â€“ I. Implications for remote characterization of dark primitive asteroids targeted by sample-return missions. Monthly Notices of the Royal Astronomical Society, 2014, 437, 227-240.	4.4	26
54	Orbit and emission spectroscopy of Î±-Capricornid fireballs. Icarus, 2014, 239, 273-280.	2.5	9

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55	Comets formed in solar-nebula instabilities! â€“ An experimental and modeling attempt to relate the activity of comets to their formation process. Icarus, 2014, 235, 156-169.	2.5	100
56	Analysis of two superbolides with a cometary origin observed over the Iberian Peninsula. Icarus, 2014, 233, 27-35.	2.5	12
57	Analysis of bright Taurid fireballs and their ability to produce meteorites. Icarus, 2014, 231, 356-364.	2.5	23
58	Trajectory, orbit, and spectroscopic analysis of a bright fireball observed over Spain on April 13, 2013. Astronomy and Astrophysics, 2014, 569, A104.	5.1	11
59	Analysis of a superbolide from a damocloid observed over Spain on 2012 July 13. Monthly Notices of the Royal Astronomical Society, 2013, 436, 3656-3662.	4.4	5
60	The 2011 October Draconids outburst â€“ II. Meteoroid chemical abundances from fireball spectroscopy. Monthly Notices of the Royal Astronomical Society, 2013, 433, 571-580.	4.4	31
61	The Geminid meteoroid stream as a potential meteorite dropper: a case study. Monthly Notices of the Royal Astronomical Society, 2013, 436, 2818-2823.	4.4	21
62	The Northern Ï‡-Orionid meteoroid stream and possible association with the potentially hazardous asteroid 2008XM1. Monthly Notices of the Royal Astronomical Society, 2013, 431, 2464-2470.	4.4	40
63	The 2011 October Draconids outburst â€“ I. Orbital elements, meteoroid fluxes and 21P/Giacobiniâ€“Zinner delivered mass to Earth. Monthly Notices of the Royal Astronomical Society, 2013, 433, 560-570.	4.4	23
64	Spectroscopy and orbital analysis of bright bolides observed over the Iberian Peninsula from 2010 to 2012. Monthly Notices of the Royal Astronomical Society, 2013, 435, 2023-2032.	4.4	5
65	On the activity of the Î³-Ursae Minorids meteoroid stream in 2010 and 2011. Monthly Notices of the Royal Astronomical Society, 2013, 431, 1678-1685.	4.4	16
66	The Tajikistan superbolide of July 23, 2008. I. Trajectory, orbit, and preliminary fall data. Meteoritics and Planetary Science, 2013, 48, 2469-2479.	1.6	3
67	Nitrogen in Solar System Minor Bodies: Delivery Pathways to Primeval Earth. Thirty Years of Astronomical Discovery With UKIRT, 2013, , 9-22.	0.3	4
68	Implication of Impacts in the Young Earth Sun Paradox and the Evolution of Earthâ€™s Atmosphere. Thirty Years of Astronomical Discovery With UKIRT, 2013, , 85-97.	0.3	5
69	Orbit, emission spectrum, and photometric analysis of two flickering sporadic fireballs. Astronomy and Astrophysics, 2013, 555, A149.	5.1	5
70	Introduction: On the Early Evolution of the Atmosphere of Terrestrial Planets: COST Action CM#0805. Thirty Years of Astronomical Discovery With UKIRT, 2013, , 1-8.	0.3	0
71	SNC Meteorites: Atmosphere Implantation Ages and the Climatic Evolution of Mars. Thirty Years of Astronomical Discovery With UKIRT, 2013, , 165-172.	0.3	2
72	MarcoPolo-R near earth asteroid sample return mission. Experimental Astronomy, 2012, 33, 645-684.	3.7	72

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73	Very low strengths of interplanetary meteoroids and small asteroids. Meteoritics and Planetary Science, 2011, 46, 1525-1550.	1.6	145
74	EPOXI: COMET 103P/HARTLEY 2 OBSERVATIONS FROM A WORLDWIDE CAMPAIGN. Astrophysical Journal Letters, 2011, 734, L1.	8.3	96
75	Outburst activity in comets - II. A multiband photometric monitoring of comet 29P/Schwassmann-Wachmann 1. Monthly Notices of the Royal Astronomical Society, 2010, 409, 1682-1690.	4.4	54
76	Robotic Systems for Meteor Observing and Moon Impact Flashes Detection in Spain. Advances in Astronomy, 2010, 2010, 1-5.	1.1	39
77	The Berduc L6 chondrite fall: Meteorite characterization, trajectory, and orbital elements. Meteoritics and Planetary Science, 2010, 45, 383-393.	1.6	1
78	The outburst of the Îº Cygnids in 2007: clues about the catastrophic break up of a comet to produce an Earth-crossing meteoroid stream. Monthly Notices of the Royal Astronomical Society, 2009, 392, 367-375.	4.4	27
79	Observations of a very bright fireball and its likely link with comet C/1919 Q2 Metcalf. Monthly Notices of the Royal Astronomical Society, 2009, 394, 569-576.	4.4	30
80	Tensile strength as an indicator of the degree of primitiveness of undifferentiated bodies. Planetary and Space Science, 2009, 57, 243-249.	1.7	40
81	The Puerto LÃ¡pice eucrite. Meteoritics and Planetary Science, 2009, 44, 159-174.	1.6	25
82	Puerto LÃ¡pice eucrite fall: Strewn field, physical description, probable fireball trajectory, and orbit. Meteoritics and Planetary Science, 2009, 44, 175-186.	1.6	9
83	The Cali meteorite fall: A new H/L ordinary chondrite. Meteoritics and Planetary Science, 2009, 44, 211-220.	1.6	7
84	The role of massive AGB stars in the early solar system composition. Meteoritics and Planetary Science, 2009, 44, 627-639.	1.6	35
85	The Cali Meteorite: Luminescence of a recently fallen Hâ•L ordinary chondrite. , 2009, , .		0
86	The Effect of Aqueous Alteration and Metamorphism in the Survival of Presolar Silicate Grains in Chondrites. Publications of the Astronomical Society of Australia, 2009, 26, 289-296.	3.4	17
87	March 1, 2005 Daylight Fireball Over Galicia (NW of Spain) and Minho (N. Portugal). Earth, Moon and Planets, 2008, 102, 537-542.	0.6	3
88	Determination of Meteoroid Orbits and Spatial Fluxes by Using High-Resolution All-Sky CCD Cameras. Earth, Moon and Planets, 2008, 102, 231-240.	0.6	24
89	Multi-station Video Orbits of Minor Meteor Showers. Earth, Moon and Planets, 2008, 102, 133-139.	0.6	44
90	Leonids 2006 observations of the tail of trails: Where is the comet fluff?. Icarus, 2008, 196, 171-183.	2.5	8

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91	Characteristics of cometary dust tracks in Stardust aerogel and laboratory calibrations. Meteoritics and Planetary Science, 2008, 43, 23-40.	1.6	134
92	Bulbous tracks arising from hypervelocity capture in aerogel. Meteoritics and Planetary Science, 2008, 43, 75-86.	1.6	69
93	Meteorites and the early solar system II, edited by Dante S. Lauretta and Harry Y. McSween, Jr.. Meteoritics and Planetary Science, 2008, 43, 989-991.	1.6	0
94	A Massive AGB Star as Source of Short-Lived Nuclei in the Early Solar System. AIP Conference Proceedings, 2008, , .	0.4	0
95	A very sensitive all-sky CCD camera for continuous recording of the night sky. Proceedings of SPIE, 2008, , .	0.8	3
96	Outburst activity in comets. Astronomy and Astrophysics, 2008, 485, 599-606.	5.1	57
97	Determination of Meteoroid Orbits and Spatial Fluxes by Using High-Resolution All-Sky CCD Cameras. , 2008, , 231-240.		3
98	Progressive aqueous alteration of CM carbonaceous chondrites. Geochimica Et Cosmochimica Acta, 2007, 71, 2361-2382.	3.9	421
99	Meteor showers and their parent comets, by Peter Jenniskens. Meteoritics and Planetary Science, 2007, 42, 471-472.	1.6	1
100	On the sodium overabundance in cometary meteoroids. Advances in Space Research, 2007, 39, 517-525.	2.6	25
101	The 2006 Orionid outburst imaged by all-sky CCD cameras from Spain: meteoroid spatial fluxes and orbital elements. Monthly Notices of the Royal Astronomical Society, 2007, 380, 126-132.	4.4	29
102	Asteroid 2002NY40 as a source of meteorite-dropping bolides. Monthly Notices of the Royal Astronomical Society, 2007, 382, 1933-1939.	4.4	37
103	Multi-station Video Orbits of Minor Meteor Showers. , 2007, , 133-139.		0
104	Impact Features on Stardust: Implications for Comet 81P/Wild 2 Dust. Science, 2006, 314, 1716-1719.	12.6	286
105	Comet 81P/Wild 2 Under a Microscope. Science, 2006, 314, 1711-1716.	12.6	848
106	The Villalbeto de la PeÃ±a meteorite fall: II. Determination of atmospheric trajectory and orbit. Meteoritics and Planetary Science, 2006, 41, 505-517.	1.6	48
107	Non-nebular origin of dark mantles around chondrules and inclusions in CM chondrites. Geochimica Et Cosmochimica Acta, 2006, 70, 1271-1290.	3.9	111
108	The Physics of Protoplanetesimal Dust Agglomerates. I. Mechanical Properties and Relations to Primitive Bodies in the Solar System. Astrophysical Journal, 2006, 652, 1768-1781.	4.5	158

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109	The Spanish fireball network. Astronomy and Geophysics, 2006, 47, 6.26-6.28.	0.2	19
110	The strength of cometary meteoroids: clues to the structure and evolution of comets. Monthly Notices of the Royal Astronomical Society, 2006, 372, 655-660.	4.4	96
111	Detection of sporadic impact flashes on the Moon: Implications for the luminous efficiency of hypervelocity impacts and derived terrestrial impact rates. Icarus, 2006, 184, 319-326.	2.5	74
112	The Development of the Spanish Fireball Network Using a New All-Sky CCD System. Earth, Moon and Planets, 2006, 95, 553-567.	0.6	30
113	SPECTROSCOPY OF A GEMINID FIREBALL: ITS SIMILARITY TO COMETARY METEOROIDS AND THE NATURE OF ITS PARENT BODY. Earth, Moon and Planets, 2006, 95, 375-387.	0.6	13
114	Orbital Elements of 2004 Perseid Meteoroids Perturbed by Jupiter. Earth, Moon and Planets, 2006, 97, 269-278.	0.6	5
115	BOOTES-IR: a robotic nIR astronomical observatory devoted to follow-up of transient phenomena. , 2006, , .		1
116	BOOTES-IR: The extension of BOOTES towards the near-IR. AIP Conference Proceedings, 2006, , .	0.4	1
117	Rubidium-Rich Asymptotic Giant Branch Stars. Science, 2006, 314, 1751-1754.	12.6	116
118	Leonid Meteoroid Orbits Perturbed by Collisions with Interplanetary Dust. Astrophysical Journal, 2005, 621, 1146-1152.	4.5	18
119	Comets II, edited by M. C. Festou, H. U. Keller, and H. A. Weaver. Meteoritics and Planetary Science, 2005, 40, 1749-1750.	1.6	1
120	The Villalbeto de la PeÃ±a meteorite fall: I. Fireball energy, meteorite recovery, strewn field, and petrography. Meteoritics and Planetary Science, 2005, 40, 795-804.	1.6	58
121	Carbon-rich chondritic clast PV1 from the Plainview H-chondrite regolith breccia: Formation from H3 chondrite material by possible cometary impact. Geochimica Et Cosmochimica Acta, 2005, 69, 3419-3430.	3.9	31
122	Optical observations of meteoric dust in the middle atmosphere during Leonid activity in recent years 2001â€“2003 over India. Geophysical Research Letters, 2005, 32, .	4.0	10
123	The Spanish Fireball Network: Popularizing Interplanetary Matter. EAS Publications Series, 2005, 16, 129-133.	0.3	2
124	Spectroscopy of a Geminid Fireball: Its Similarity to Cometary Meteoroids and the Nature of its Parent Body. , 2005, , 375-387.		1
125	Chemical abundances determined from meteor spectra - II. Evidence for enlarged sodium abundances in meteoroids. Monthly Notices of the Royal Astronomical Society, 2004, 348, 802-810.	4.4	46
126	2002 Leonid storm fluxes and related orbital elements. Icarus, 2004, 171, 219-228.	2.5	29

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127	Chemical Abundances of Cometary Meteoroids from Meteor Spectroscopy. Cellular Origin and Life in Extreme Habitats, 2004, , 201-204.	0.3	3
128	OH and O2airglow emissions during the 1998 leonid outburst and the 2002 leonid storm. Earth, Moon and Planets, 2003, 93, 191-201.	0.6	0
129	OH and O2 airglow emissions during the 1998 leonid outburst and the 2002 leonid storm. Earth, Moon and Planets, 2003, 93, 191-201.	0.6	0
130	Chemical abundances determined from meteor spectra: I. Ratios of the main chemical elements. Meteoritics and Planetary Science, 2003, 38, 1283-1294.	1.6	111
131	On the Origin of the 1999 Leonid Storm as Deduced from Photographic Observations. Earth, Moon and Planets, 2002, 91, 107-119.	0.6	17
132	The 90-day oscillations of Jupiterâ€™s Great Red Spot revisited. Planetary and Space Science, 2000, 48, 331-339.	1.7	15
133	The flux of meteoroids over time: meteor emission spectroscopy and the delivery of volatiles and chondritic materials to Earth. , 0, , .		5