

# Olivier Groussin

## List of Publications by Year in descending order

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71  
papers

6,683  
citations

66343

42  
h-index

82547

72  
g-index

72  
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72  
docs citations

72  
times ranked

2468  
citing authors

#	ARTICLE	IF	CITATIONS
1	Deep Impact: Excavating Comet Tempel 1. <i>Science</i> , 2005, 310, 258-264.	12.6	728
2	EPOXI at Comet Hartley 2. <i>Science</i> , 2011, 332, 1396-1400.	12.6	401
3	On the nucleus structure and activity of comet 67P/Churyumov-Gerasimenko. <i>Science</i> , 2015, 347, aaa1044.	12.6	366
4	Dust measurements in the coma of comet 67P/Churyumov-Gerasimenko inbound to the Sun. <i>Science</i> , 2015, 347, aaa3905.	12.6	310
5	The morphological diversity of comet 67P/Churyumov-Gerasimenko. <i>Science</i> , 2015, 347, aaa0440.	12.6	259
6	The global shape, density and rotation of Comet 67P/Churyumov-Gerasimenko from preperihelion Rosetta/OSIRIS observations. <i>Icarus</i> , 2016, 277, 257-278.	2.5	252
7	Exposed Water Ice Deposits on the Surface of Comet 9P/Tempel 1. <i>Science</i> , 2006, 311, 1453-1455.	12.6	238
8	Shape model, reference system definition, and cartographic mapping standards for comet 67P/Churyumov-Gerasimenko – Stereo-photogrammetric analysis of Rosetta/OSIRIS image data. <i>Astronomy and Astrophysics</i> , 2015, 583, A33.	5.1	188
9	Spectrophotometric properties of the nucleus of comet 67P/Churyumov-Gerasimenko from the OSIRIS instrument onboard the ROSETTA spacecraft. <i>Astronomy and Astrophysics</i> , 2015, 583, A30.	5.1	188
10	Insolation, erosion, and morphology of comet 67P/Churyumov-Gerasimenko. <i>Astronomy and Astrophysics</i> , 2015, 583, A34.	5.1	173
11	The primordial nucleus of comet 67P/Churyumov-Gerasimenko. <i>Astronomy and Astrophysics</i> , 2016, 592, A63.	5.1	159
12	Large heterogeneities in comet 67P as revealed by active pits from sinkhole collapse. <i>Nature</i> , 2015, 523, 63-66.	27.8	158
13	EVOLUTION OF THE DUST SIZE DISTRIBUTION OF COMET 67P/CHURYUMOV-GERASIMENKO FROM 2.2 au TO PERIHELION. <i>Astrophysical Journal</i> , 2016, 821, 19.	4.5	158
14	Regional surface morphology of comet 67P/Churyumov-Gerasimenko from Rosetta/OSIRIS images. <i>Astronomy and Astrophysics</i> , 2015, 583, A26.	5.1	153
15	Redistribution of particles across the nucleus of comet 67P/Churyumov-Gerasimenko. <i>Astronomy and Astrophysics</i> , 2015, 583, A17.	5.1	149
16	Shape, density, and geology of the nucleus of Comet 103P/Hartley 2. <i>Icarus</i> , 2013, 222, 550-558.	2.5	112
17	Thermal properties, sizes, and size distribution of Jupiter-family cometary nuclei. <i>Icarus</i> , 2013, 226, 1138-1170.	2.5	112
18	Seasonal mass transfer on the nucleus of comet 67P/Chuyumov-Gerasimenko. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 469, S357-S371.	4.4	111

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19	Surface temperature of the nucleus of Comet 9P/Tempel 1. <i>Icarus</i> , 2007, 187, 16-25.	2.5	110
20	“TNOs are Cool” A survey of the trans-Neptunian region. <i>Astronomy and Astrophysics</i> , 2013, 557, A60.	5.1	109
21	Size-frequency distribution of boulders $\geq 7$ m on comet 67P/Churyumov-Gerasimenko. <i>Astronomy and Astrophysics</i> , 2015, 583, A37.	5.1	108
22	The global meter-level shape model of comet 67P/Churyumov-Gerasimenko. <i>Astronomy and Astrophysics</i> , 2017, 607, L1.	5.1	107
23	Are fractured cliffs the source of cometary dust jets? Insights from OSIRIS/Rosetta at 67P/Churyumov-Gerasimenko. <i>Astronomy and Astrophysics</i> , 2016, 587, A14.	5.1	102
24	OSIRIS observations of meter-sized exposures of H <sub>2</sub> O ice at the surface of 67P/Churyumov-Gerasimenko and interpretation using laboratory experiments. <i>Astronomy and Astrophysics</i> , 2015, 583, A25.	5.1	97
25	Rosetta’s comet 67P/Churyumov-Gerasimenko sheds its dusty mantle to reveal its icy nature. <i>Science</i> , 2016, 354, 1566-1570.	12.6	97
26	The nucleus of Comet 9P/Tempel 1: Shape and geology from two flybys. <i>Icarus</i> , 2013, 222, 453-466.	2.5	89
27	Regional surface morphology of comet 67P/Churyumov-Gerasimenko from Rosetta/OSIRIS images: The southern hemisphere. <i>Astronomy and Astrophysics</i> , 2016, 593, A110.	5.1	86
28	The temperature, thermal inertia, roughness and color of the nuclei of Comets 103P/Hartley 2 and 9P/Tempel 1. <i>Icarus</i> , 2013, 222, 580-594.	2.5	81
29	Fractures on comet 67P/Churyumov-Gerasimenko observed by Rosetta/OSIRIS. <i>Geophysical Research Letters</i> , 2015, 42, 5170-5178.	4.0	71
30	Scientific assessment of the quality of OSIRIS images. <i>Astronomy and Astrophysics</i> , 2015, 583, A46.	5.1	67
31	Surface changes on comet 67P/Churyumov-Gerasimenko suggest a more active past. <i>Science</i> , 2017, 355, 1392-1395.	12.6	63
32	<i>Spitzer Space Telescope</i> Observations of the Nucleus of Comet 103P/Hartley 2. <i>Publications of the Astronomical Society of the Pacific</i> , 2009, 121, 968-975.	3.1	62
33	Interpretation of thermal emission. I. The effect of roughness for spatially resolved atmosphereless bodies. <i>Icarus</i> , 2015, 252, 1-21.	2.5	62
34	The Thermal, Mechanical, Structural, and Dielectric Properties of Cometary Nuclei After Rosetta. <i>Space Science Reviews</i> , 2019, 215, 1.	8.1	61
35	Temporal morphological changes in the Imhotep region of comet 67P/Churyumov-Gerasimenko. <i>Astronomy and Astrophysics</i> , 2015, 583, A36.	5.1	60
36	Geomorphology of the Imhotep region on comet 67P/Churyumov-Gerasimenko from OSIRIS observations. <i>Astronomy and Astrophysics</i> , 2015, 583, A35.	5.1	59

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37	Sunset jets observed on comet 67P/Churyumov-Gerasimenko sustained by subsurface thermal lag. <i>Astronomy and Astrophysics</i> , 2016, 586, A7.	5.1	55
38	Aswan site on comet 67P/Churyumov-Gerasimenko: Morphology, boulder evolution, and spectrophotometry. <i>Astronomy and Astrophysics</i> , 2016, 592, A69.	5.1	53
39	Acceleration of individual, decimetre-sized aggregates in the lower coma of comet 67P/Churyumov-Gerasimenko. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 462, S78-S88.	4.4	52
40	Asteroid (21) Lutetia as a remnant of Earth's precursor planetesimals. <i>Icarus</i> , 2011, 216, 650-659.	2.5	45
41	Thermal inertia and surface roughness of Comet 9P/Tempel 1. <i>Icarus</i> , 2013, 224, 154-171.	2.5	45
42	The scattering phase function of comet 67P/Churyumov-Gerasimenko coma as seen from the Rosetta/OSIRIS instrument. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 469, S404-S415.	4.4	44
43	Dust mass distribution around comet 67P/Churyumov-Gerasimenko determined via parallax measurements using Rosetta's OSIRIS cameras. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 469, S276-S284.	4.4	43
44	Thermal inertia and roughness of the nucleus of comet 67P/Churyumov-Gerasimenko from MIRO and VIRTIS observations. <i>Astronomy and Astrophysics</i> , 2018, 616, A122.	5.1	42
45	The pebbles/boulders size distributions on Sais: Rosetta's final landing site on comet 67P/Churyumov-Gerasimenko. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 469, S636-S645.	4.4	40
46	Tensile strength of 67P/Churyumov-Gerasimenko nucleus material from overhangs. <i>Astronomy and Astrophysics</i> , 2018, 611, A33.	5.1	40
47	CHANGES IN THE PHYSICAL ENVIRONMENT OF THE INNER COMA OF 67P/CHURYUMOV-GERASIMENKO WITH DECREASING HELIOCENTRIC DISTANCE. <i>Astronomical Journal</i> , 2016, 152, 130.	4.7	36
48	Observations and analysis of a curved jet in the coma of comet 67P/Churyumov-Gerasimenko. <i>Astronomy and Astrophysics</i> , 2016, 588, L3.	5.1	34
49	Spitzer Space Telescope observations of the nucleus of comet 67P/Churyumov-Gerasimenko. <i>Astronomy and Astrophysics</i> , 2008, 489, 777-785.	5.1	34
50	Morphology and dynamics of the jets of comet 67P/Churyumov-Gerasimenko: Early-phase development. <i>Astronomy and Astrophysics</i> , 2015, 583, A11.	5.1	33
51	Constraints on cometary surface evolution derived from a statistical analysis of 67P's topography. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 469, S329-S338.	4.4	33
52	Meter-scale thermal contraction crack polygons on the nucleus of comet 67P/Churyumov-Gerasimenko. <i>Icarus</i> , 2018, 301, 173-188.	2.5	33
53	Regional unit definition for the nucleus of comet 67P/Churyumov-Gerasimenko on the SHAP7 model. <i>Planetary and Space Science</i> , 2018, 164, 19-36.	1.7	32
54	Comet 67P/CG Nucleus Composition and Comparison to Other Comets. <i>Space Science Reviews</i> , 2019, 215, 1.	8.1	32

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55	The highly active Anhur‐Bes regions in the 67P/Churyumov‐Gerasimenko comet: results from OSIRIS/ROSETTA observations. Monthly Notices of the Royal Astronomical Society, 2017, 469, S93-S107.	4.4	30
56	Surface Morphology of Comets and Associated Evolutionary Processes: A Review of Rosetta‐s Observations of 67P/Churyumov‐Gerasimenko. Space Science Reviews, 2019, 215, 1.	8.1	28
57	Thermal fracturing on comets. Astronomy and Astrophysics, 2018, 610, A76.	5.1	24
58	Orbital elements of the material surrounding comet 67P/Churyumov-Gerasimenko. Astronomy and Astrophysics, 2015, 583, A16.	5.1	23
59	Sublimation of icy aggregates in the coma of comet 67P/Churyumov‐Gerasimenko detected with the OSIRIS cameras on board Rosetta. Monthly Notices of the Royal Astronomical Society, 2016, 462, S57-S66.	4.4	23
60	Bilobate comet morphology and internal structure controlled by shear deformation. Nature Geoscience, 2019, 12, 157-162.	12.9	22
61	On deviations from free-radial outflow in the inner coma of comet 67P/Churyumov‐Gerasimenko. Icarus, 2018, 311, 1-22.	2.5	21
62	A comparison of multiple Rosetta data sets and 3D model calculations of 67P/Churyumov-Gerasimenko coma around equinox (May 2015). Icarus, 2019, 328, 104-126.	2.5	20
63	Exposed bright features on the comet 67P/Churyumov‐Gerasimenko: distribution and evolution. Astronomy and Astrophysics, 2018, 613, A36.	5.1	15
64	Earth-based detection of the millimetric thermal emission from the nucleus of comet 8P/Tuttle. Astronomy and Astrophysics, 2011, 528, A54.	5.1	10
65	Distance determination method of dust particles using Rosetta OSIRIS NAC and WAC data. Planetary and Space Science, 2017, 143, 256-264.	1.7	8
66	Geomorphological and spectrophotometric analysis of Seth's circular niches on comet 67P/Churyumov‐Gerasimenko using OSIRIS images. Monthly Notices of the Royal Astronomical Society, 2017, 469, S238-S251.	4.4	8
67	Experimental study of an uncooled microbolometer array for thermal mapping and spectroscopy of asteroids. Experimental Astronomy, 2014, 38, 381-400.	3.7	4
68	Ancient and present surface evolution processes in the Ash region of comet 67P/Churyumov-Gerasimenko. Astronomy and Astrophysics, 2021, 649, A82.	5.1	4
69	THERMAP: a mid-infrared spectro-imager for space missions to small bodies in the inner solar system. Experimental Astronomy, 2016, 41, 95-115.	3.7	3
70	Spitzer Space Telescope observations of bilobate comet 8P/Tuttle. Astronomy and Astrophysics, 2019, 632, A104.	5.1	3
71	Evidence for thermokarst depressions on comet 67P/Churyumov-Gerasimenko: An interplanetary comparison. Astronomy and Astrophysics, 2022, 662, A72.	5.1	1