

# Olivier de Viron

## List of Publications by Year in descending order

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88  
papers

2,043  
citations

236612

25  
h-index

276539

41  
g-index

98  
all docs

98  
docs citations

98  
times ranked

1574  
citing authors

#	ARTICLE	IF	CITATIONS
1	Geophysics From Terrestrial Timeâ€¢Variable Gravity Measurements. <i>Reviews of Geophysics</i> , 2017, 55, 938-992.	9.0	157
2	Characterization and implications of intradecadal variations in length of day. <i>Nature</i> , 2013, 499, 202-204.	13.7	113
3	Evidence of earthquake triggering by the solid earth tides. <i>Earth and Planetary Science Letters</i> , 2009, 278, 370-375.	1.8	106
4	Coseismic and post-seismic signatures of the Sumatra 2004 December and 2005 March earthquakes in GRACE satellite gravity. <i>Geophysical Journal International</i> , 2007, 171, 177-190.	1.0	103
5	Recent Earth Oblateness Variations: Unraveling Climate and Postglacial Rebound Effects. <i>Science</i> , 2002, 298, 1975-1977.	6.0	93
6	Geomagnetic jerks and a high-resolution length-of-day profile for core studies. <i>Geophysical Journal International</i> , 2005, 160, 435-439.	1.0	68
7	Atmospheric Angular Momentum Time-Series: Characterization of their Internal Noise and Creation of a Combined Series. <i>Journal of Geodesy</i> , 2006, 79, 663-674.	1.6	53
8	Improving DORIS geocenter time series using an empirical rescaling of solar radiation pressure models. <i>Advances in Space Research</i> , 2009, 44, 1279-1287.	1.2	51
9	Constraints on the coupling at the core-mantle and inner core boundaries inferred from nutation observations. <i>Geophysical Journal International</i> , 2010, 182, 1279-1294.	1.0	47
10	Mars rotation variations induced by atmosphere and ice caps. <i>Journal of Geophysical Research</i> , 2000, 105, 24563-24570.	3.3	45
11	Systematic biases in DORIS-derived geocenter time series related to solar radiation pressure mis-modeling. <i>Journal of Geodesy</i> , 2009, 83, 849-858.	1.6	45
12	Considerations concerning the non-rigid Earth nutation theory. <i>Celestial Mechanics and Dynamical Astronomy</i> , 1998, 72, 245-309.	0.5	41
13	Atmospheric torque on the Earth and comparison with atmospheric angular momentum variations. <i>Journal of Geophysical Research</i> , 1999, 104, 4861-4875.	3.3	41
14	Retrieving earthquake signature in grace gravity solutions. <i>Geophysical Journal International</i> , 2008, 174, 14-20.	1.0	40
15	Influence of the seasonal winds and the CO2mass exchange between atmosphere and polar caps on Mars' rotation. <i>Journal of Geophysical Research</i> , 2002, 107, 9-1.	3.3	38
16	Global modes of climate variability. <i>Geophysical Research Letters</i> , 2013, 40, 1832-1837.	1.5	36
17	Repeated absolute gravity measurements for monitoring slow intraplate vertical deformation in western Europe. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	34
18	Recent changes of the Earthâ€™s core derived from satellite observations of magnetic and gravity fields. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 19129-19133.	3.3	33

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19	Estimation of Earth interior parameters from a Bayesian inversion of very long baseline interferometry nutation time series. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	32
20	A seafloor experiment to monitor vertical deformation at the Lucky Strike volcano, Mid-Atlantic Ridge. <i>Journal of Geodesy</i> , 2009, 83, 147-159.	1.6	32
21	Lander radioscience for obtaining the rotation and orientation of Mars. <i>Planetary and Space Science</i> , 2009, 57, 1050-1067.	0.9	32
22	Stability of VLBI, SLR, DORIS, and GPS positioning. <i>Earth, Planets and Space</i> , 2007, 59, 475-497.	0.9	31
23	Noise reduction through joint processing of gravity and gravity gradient data. <i>Geophysics</i> , 2008, 73, 123-134.	1.4	28
24	The GHYRAF (Gravity and Hydrology in Africa) experiment: Description and first results. <i>Journal of Geodynamics</i> , 2009, 48, 172-181.	0.7	28
25	Optimized strategy for the calibration of superconducting gravimeters at the one per mille level. <i>Journal of Geodesy</i> , 2016, 90, 91-99.	1.6	28
26	Remaining error sources in the nutation at the submilliarc second level. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	27
27	Air Temperature and Anthropogenic Forcing: Insights from the Solid Earth. <i>Journal of Climate</i> , 2011, 24, 569-574.	1.2	25
28	Pacific geoid anomalies revisited in light of thermochemical oscillating domes in the lower mantle. <i>Earth and Planetary Science Letters</i> , 2011, 306, 123-135.	1.8	24
29	Separating climate-induced mass transfers and instrumental effects from tectonic signal in repeated absolute gravity measurements. <i>Geophysical Research Letters</i> , 2016, 43, 4313-4320.	1.5	24
30	Diurnal and subdiurnal effects of the atmosphere on the Earth rotation and geocenter motion. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	23
31	Characterizing long-time scale hydrological effects on gravity for improved distinction of tectonic signals. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	21
32	Local stress sources in Western Europe lithosphere from geoid anomalies. <i>Lithosphere</i> , 2013, 5, 235-246.	0.6	21
33	Effect of global warming on the length-of-day. <i>Geophysical Research Letters</i> , 2002, 29, 50-1.	1.5	20
34	Can a solid inner core of Mars be detected from observations of polar motion and nutation of Mars?. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	20
35	Direct measurement of evapotranspiration from a forest using a superconducting gravimeter. <i>Geophysical Research Letters</i> , 2016, 43, 10,225.	1.5	20
36	Energy Transfers and Reflection of Infragravity Waves at a Dissipative Beach Under Storm Waves. <i>Journal of Geophysical Research: Oceans</i> , 2020, 125, e2019JC015714.	1.0	19

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37	Coherent interannual and decadal variations in the atmosphere-ocean system. <i>Geophysical Research Letters</i> , 2003, 30, .	1.5	18
38	Numerical modelling of post-seismic rupture propagation after the Sumatra 26.12.2004 earthquake constrained by GRACE gravity data. <i>Geophysical Journal International</i> , 2013, 194, 640-650.	1.0	18
39	Influence of Aperiodic Non-Tidal Atmospheric and Oceanic Loading Deformations on the Stochastic Properties of Global GNSS Vertical Land Motion Time Series. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB022370.	1.4	18
40	Atmospheric excitation of the Earth's nutation: Comparison of different atmospheric models. <i>Journal of Geophysical Research</i> , 2002, 107, ETG 2-1.	3.3	17
41	Vertical land motion in the Southwest and Central Pacific from available GNSS solutions and implications for relative sea levels. <i>Geophysical Journal International</i> , 2019, 218, 1537-1551.	1.0	17
42	Assessing the precision in loading estimates by geodetic techniques in Southern Europe. <i>Geophysical Journal International</i> , 2013, 194, 1441-1454.	1.0	16
43	The quest for a consistent signal in ground and GRACE gravity time-series. <i>Geophysical Journal International</i> , 2014, 197, 192-201.	1.0	16
44	Indirect effect of the atmosphere through the oceans on the Earth nutation using the torque approach. <i>Journal of Geophysical Research</i> , 2001, 106, 8841-8851.	3.3	15
45	Atmospheric contributions to nutations and implications for the estimation of deep Earth's properties from nutation observations. <i>Geophysical Journal International</i> , 2011, 185, 1255-1265.	1.0	15
46	Atmospheric angular momentum variations of Earth, Mars and Venus at seasonal time scales. <i>Planetary and Space Science</i> , 2011, 59, 923-933.	0.9	15
47	The effects of seasonal mass redistribution and interior structure on Length-of-Day variations of Mars. <i>Advances in Space Research</i> , 2006, 38, 739-744.	1.2	14
48	Leading modes of torsional oscillations within the Earth's core. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	14
49	Earth's Rotation And High Frequency Equatorial Angular Momentum Budget Of The Atmosphere. , 1999, 20, 441-462.		13
50	Atmospheric torques during the winter of 1989: Impact of ENSO and NAO positive phases. <i>Geophysical Research Letters</i> , 2001, 28, 1985-1988.	1.5	13
51	Earth rotation as an interdisciplinary topic shared by astronomers, geodesists and geophysicists. <i>Advances in Space Research</i> , 2002, 30, 163-173.	1.2	13
52	Atmospheric and oceanic excitation of the rotation of a three-layer Earth. <i>Astronomy and Astrophysics</i> , 2005, 438, 1149-1161.	2.1	13
53	Diurnal angular momentum budget of the atmosphere and its consequences for Earth's nutation. <i>Journal of Geophysical Research</i> , 2001, 106, 26747-26759.	3.3	12
54	Excitation of Mars polar motion. <i>Astronomy and Astrophysics</i> , 2006, 446, 345-355.	2.1	12

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55	Links between intraseasonal (extended MJO) and ENSO timescales: Insights via geodetic and atmospheric analysis. <i>Geophysical Research Letters</i> , 2001, 28, 3465-3468.	1.5	10
56	Geodetic effects of the ocean response to atmospheric forcing in an ocean general circulation model. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	10
57	Comparative study of temporal variations in the earth's gravity field using GRACE gravity models in the regions of three recent giant earthquakes. <i>Izvestiya, Physics of the Solid Earth</i> , 2014, 50, 177-191.	0.2	10
58	Tests on the validity of atmospheric torques on Earth computed from atmospheric model outputs. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	9
59	Atmospheric Contributions to Earth Nutation: Geodetic Constraints and Limitations of the Torque Approach. <i>Journals of the Atmospheric Sciences</i> , 2004, 61, 352-356.	0.6	9
60	Closure in the Earth's angular momentum budget observed from subseasonal periods down to four days: No core effects needed. <i>Geophysical Research Letters</i> , 2010, 37, .	1.5	9
61	Abrupt atmospheric torque changes and their role in the 1976-1977 climate regime shift. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	9
62	Improving the determination of the gravity rate of change by combining superconducting with absolute gravimeter data. <i>Computers and Geosciences</i> , 2013, 51, 49-55.	2.0	9
63	Low-frequency excitation of length of day and polar motion by the atmosphere. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	8
64	The two types of El Niño and their impacts on the length of day. <i>Geophysical Research Letters</i> , 2014, 41, 3407-3412.	1.5	8
65	Axial Atmospheric Angular Momentum Budget at Diurnal and Subdiurnal Periodicities. <i>Journals of the Atmospheric Sciences</i> , 2008, 65, 156-171.	0.6	7
66	Detection of the Earth rotation response to a rapid fluctuation of Southern Ocean circulation in November 2009. <i>Geophysical Research Letters</i> , 2012, 39, .	1.5	7
67	Using altimetry and seafloor pressure data to estimate vertical deformation offshore: Vanuatu case study. <i>Advances in Space Research</i> , 2013, 51, 1335-1351.	1.2	7
68	Assessment of Tide Gauge Biases and Precision by the Combination of Multiple Collocated Time Series. <i>Journal of Atmospheric and Oceanic Technology</i> , 2019, 36, 1983-1996.	0.5	7
69	Interannual atmospheric torque and El Niño Southern Oscillation: Where is the polar motion signal?. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	6
70	Evaluation of MODIS data for improved monitoring of the Caspian Sea. <i>International Journal of Remote Sensing</i> , 2014, 35, 6060-6075.	1.3	6
71	Detecting hydrological connectivity using causal inference from time series: synthetic and real karstic case studies. <i>Hydrology and Earth System Sciences</i> , 2022, 26, 2181-2199.	1.9	6
72	Revisiting absolute gravimeter intercomparisons. <i>Metrologia</i> , 2011, 48, 290-298.	0.6	5

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73	Impact of offsets on assessing the low-frequency stochastic properties of geodetic time series. <i>Journal of Geodesy</i> , 2022, 96, .	1.6	5
74	Annual atmospheric torques: Processes and regional contributions. <i>Geophysical Research Letters</i> , 2002, 29, 44-1.	1.5	4
75	Degree-one displacements on Mars. <i>Geophysical Research Letters</i> , 2002, 29, 6-1.	1.5	3
76	Impact of the North Atlantic Oscillation on Southern Europe Water Distribution: Insights from Geodetic Data. <i>Earth Interactions</i> , 2015, 19, 1-16.	0.7	3
77	The slightness of gravimetry. <i>Nature Physics</i> , 2016, 12, 816-816.	6.5	3
78	Atmospheric torques and Earth's rotation: what drove the millisecond-level length-of-day response to the 2015-2016 El Niño?. <i>Earth System Dynamics</i> , 2017, 8, 1009-1017.	2.7	3
79	Comparing global seismic tomography models using varimax principal component analysis. <i>Solid Earth</i> , 2021, 12, 1601-1634.	1.2	3
80	The Global Patterns of Interannual and Intraseasonal Mass Variations in the Oceans from GRACE and GRACE Follow-On Records. <i>Remote Sensing</i> , 2022, 14, 1861.	1.8	2
81	Analysis of the Residuals between Theoretical Nutations and VLBI Observations. <i>Highlights of Astronomy</i> , 2002, 12, 124-125.	0.0	1
82	Effect of changes in total atmospheric mass on length-of-day modeling. <i>Geophysical Research Letters</i> , 2002, 29, 30-1-30-4.	1.5	1
83	Geophysical excitation of the Earth orientation parameters EOP and its contribution to GGOS. <i>Journal of Geodynamics</i> , 2005, 40, 394-399.	0.7	1
84	Reply to Comment on: "The quest for a consistent signal in ground and GRACE gravity time series", by Michel Van Camp, Olivier de Viron, Laurent MÃ©tivier, Bruno Meurers and Olivier Francis. <i>Geophysical Journal International</i> , 2014, 199, 1818-1822.	1.0	1
85	Thermohaline Contribution of the Caspian Sea Water Dynamic. <i>Journal of Geography Environment and Earth Science International</i> , 2018, 17, 1-10.	0.2	1
86	Extreme Hydrometeorological Events, a Challenge for Gravimetric and Seismology Networks. <i>Earth's Future</i> , 2022, 10, .	2.4	1
87	Does the magnetic field in the fluid core contribute a lot to Earth nutation?. <i>Proceedings of the International Astronomical Union</i> , 2006, 2, 483-483.	0.0	0
88	The 3D representation of the new transformation from the terrestrial to the celestial system. <i>Proceedings of the International Astronomical Union</i> , 2006, 2, 486-486.	0.0	0