

# Oliver Montenbruck

## List of Publications by Year in descending order

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145  
papers

7,782  
citations

57752

44  
h-index

62593

80  
g-index

150  
all docs

150  
docs citations

150  
times ranked

2543  
citing authors

#	ARTICLE	IF	CITATIONS
1	Performance assessment of GNSS-based real-time navigation for the Sentinel-6 spacecraft. GPS Solutions, 2022, 26, 1.	4.3	18
2	Evaluation of earth rotation parameters from modernized GNSS navigation messages. GPS Solutions, 2022, 26, 1.	4.3	5
3	Bandwidth correction of Swarm GPS carrier phase observations for improved orbit and gravity field determination. GPS Solutions, 2021, 25, 70.	4.3	5
4	Precise point positioning with GPS and Galileo broadcast ephemerides. GPS Solutions, 2021, 25, 1.	4.3	30
5	Precise real-time navigation of LEO satellites using GNSS broadcast ephemerides. Navigation, Journal of the Institute of Navigation, 2021, 68, 419-432.	2.8	27
6	Sentinel-6A precise orbit determination using a combined GPS/Galileo receiver. Journal of Geodesy, 2021, 95, 1.	3.6	27
7	A long-term broadcast ephemeris model for extended operation of GNSS satellites. Navigation, Journal of the Institute of Navigation, 2021, 68, 199-215.	2.8	8
8	Consistency of MGEX Orbit and Clock Products. Engineering, 2020, 6, 898-903.	6.7	31
9	NeQuick-G performance assessment for space applications. GPS Solutions, 2020, 24, 1.	4.3	25
10	Comparing the "Big 4"™ - A User's View on GNSS Performance. , 2020, , .		26
11	Flight results of GPS-based attitude determination for the Canadian CASSIOPE satellite. Navigation, Journal of the Institute of Navigation, 2020, 67, 83-93.	2.8	5
12	Thermosphere densities derived from Swarm GPS observations. Advances in Space Research, 2020, 65, 1758-1771.	2.6	48
13	GPS III Vespucci: Results of half a year in orbit. Advances in Space Research, 2020, 66, 2773-2785.	2.6	20
14	Flight results of GPS-based attitude determination for the microsatellite Flying Laptop. Navigation, Journal of the Institute of Navigation, 2019, 66, 277-287.	2.8	7
15	Quality assessment of GPS, Galileo and BeiDou-2/3 satellite broadcast group delays. Advances in Space Research, 2019, 64, 1764-1779.	2.6	20
16	Signal analysis of the first GPS III satellite. GPS Solutions, 2019, 23, 1.	4.3	22
17	CASSIOPE orbit and attitude determination using commercial off-the-shelf GPS receivers. GPS Solutions, 2019, 23, 1.	4.3	12
18	Flex power on GPS Block IIR-M and IIF. GPS Solutions, 2019, 23, 1.	4.3	39

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19	Satellite laser ranging to low Earth orbiters: orbit and network validation. <i>Journal of Geodesy</i> , 2019, 93, 2315-2334.	3.6	62
20	Precise Orbit and Baseline Determination for the SAOCOM-CS Bistatic Radar Mission. <i>Navigation, Journal of the Institute of Navigation</i> , 2018, 65, 15-24.	2.8	9
21	Multi-GNSS signal-in-space range error assessment – Methodology and results. <i>Advances in Space Research</i> , 2018, 61, 3020-3038.	2.6	135
22	Relative positioning of formation-flying spacecraft using single-receiver GPS carrier phase ambiguity fixing. <i>GPS Solutions</i> , 2018, 22, 1.	4.3	15
23	Precise orbit determination of the Sentinel-3A altimetry satellite using ambiguity-fixed GPS carrier phase observations. <i>Journal of Geodesy</i> , 2018, 92, 711-726.	3.6	89
24	GNSS satellite transmit power and its impact on orbit determination. <i>Journal of Geodesy</i> , 2018, 92, 609-624.	3.6	89
25	Ray-tracing solar radiation pressure modeling for QZS-1. <i>Advances in Space Research</i> , 2018, 62, 935-943.	2.6	14
26	Long-Term Validation of TerraSAR-X and TanDEM-X Orbit Solutions with Laser and Radar Measurements. <i>Remote Sensing</i> , 2018, 10, 762.	4.0	16
27	GPS Relative Navigation for the CanX-4 and CanX-5 Formation-Flying Nanosatellites. <i>Journal of Spacecraft and Rockets</i> , 2018, 55, 1545-1558.	1.9	17
28	Reduced dynamic and kinematic precise orbit determination for the Swarm mission from 4 years of GPS tracking. <i>GPS Solutions</i> , 2018, 22, 1.	4.3	56
29	High-rate clock variations of the Galileo IOV-1/2 satellites and their impact on carrier tracking by geodetic receivers. <i>GPS Solutions</i> , 2017, 21, 43-52.	4.3	6
30	Results of the GNSS receiver experiment OCAM-G on Ariane-5 flight VA 219. <i>Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering</i> , 2017, 231, 1100-1114.	1.3	5
31	Precise orbit and baseline determination for maneuvering low earth orbiters. <i>GPS Solutions</i> , 2017, 21, 53-64.	4.3	25
32	The Multi-GNSS Experiment (MGEX) of the International GNSS Service (IGS) – Achievements, prospects and challenges. <i>Advances in Space Research</i> , 2017, 59, 1671-1697.	2.6	679
33	Reduced-dynamic and kinematic baseline determination for the Swarm mission. <i>GPS Solutions</i> , 2017, 21, 1275-1284.	4.3	17
34	Introduction to GNSS. , 2017, , 3-23.		22
35	Chinese Navigation Satellite Systems. , 2017, , 273-304.		31
36	Regional Systems. , 2017, , 305-337.		3

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37	Antennas. , 2017, , 505-534.		10
38	Satellite Orbits and Attitude. , 2017, , 59-90.		12
39	Space Applications. , 2017, , 933-964.		5
40	GLONASS. , 2017, , 219-245.		14
41	Semi-analytical solar radiation pressure modeling for QZS-1 orbit-normal and yaw-steering attitude. Advances in Space Research, 2017, 59, 2088-2100.	2.6	47
42	Model improvements and validation of TerraSAR-X precise orbit determination. Journal of Geodesy, 2017, 91, 547-562.	3.6	40
43	Estimating maneuvers for precise relative orbit determination using GPS. Advances in Space Research, 2017, 59, 45-62.	2.6	11
44	Galileo status: orbits, clocks, and positioning. GPS Solutions, 2017, 21, 319-331.	4.3	88
45	The Effect of Correlator and Front-End Design on GNSS Pseudorange Biases for Geodetic Receivers. Navigation, Journal of the Institute of Navigation, 2016, 63, 443-453.	2.8	21
46	Estimation of satellite antenna phase center offsets for Galileo. Journal of Geodesy, 2016, 90, 773-785.	3.6	44
47	Application of Semi-analytical Satellite Theory orbit propagator to orbit determination for space object catalog maintenance. Advances in Space Research, 2016, 57, 2218-2233.	2.6	16
48	Robust and precise baseline determination of distributed spacecraft in LEO. Advances in Space Research, 2016, 57, 46-63.	2.6	34
49	Performance analysis of IMU-augmented GNSS tracking systems for space launch vehicles. CEAS Space Journal, 2016, 8, 117-133.	2.3	7
50	Impact of Swarm GPS receiver updates on POD performance. Earth, Planets and Space, 2016, 68, .	2.5	50
51	A study on the dependency of GNSS pseudorange biases on correlator spacing. GPS Solutions, 2016, 20, 159-171.	4.3	83
52	Determination of differential code biases with multi-GNSS observations. Journal of Geodesy, 2016, 90, 209-228.	3.6	275
53	Radio-frequency sensor fusion for relative navigation of formation flying satellites. International Journal of Space Science and Engineering, 2015, 3, 129.	0.1	3
54	Performance Evaluation of the Early CNAV Navigation Message. Navigation, Journal of the Institute of Navigation, 2015, 62, 219-228.	2.8	24

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55	Enhanced solar radiation pressure modeling for Galileo satellites. <i>Journal of Geodesy</i> , 2015, 89, 283-297.	3.6	124
56	GIOVE-B solar radiation pressure modeling for precise orbit determination. <i>Advances in Space Research</i> , 2015, 55, 1422-1431.	2.6	22
57	The mixed-receiver BeiDou inter-satellite-type bias and its impact on RTK positioning. <i>GPS Solutions</i> , 2015, 19, 357-368.	4.3	48
58	GNSS satellite geometry and attitude models. <i>Advances in Space Research</i> , 2015, 56, 1015-1029.	2.6	176
59	Relative positioning of spacecraft in intense ionospheric conditions by GPS. <i>Aerospace Science and Technology</i> , 2015, 43, 191-198.	4.8	14
60	Model of $J_2$ perturbed satellite relative motion with time-varying differential drag. <i>Celestial Mechanics and Dynamical Astronomy</i> , 2015, 123, 411-433.	1.4	49
61	Galileo orbit and clock quality of the IGS Multi-GNSS Experiment. <i>Advances in Space Research</i> , 2015, 55, 269-281.	2.6	127
62	Galileo orbit determination using combined GNSS and SLR observations. <i>GPS Solutions</i> , 2015, 19, 15-25.	4.3	36
63	Broadcast versus precise ephemerides: a multi-GNSS perspective. <i>GPS Solutions</i> , 2015, 19, 321-333.	4.3	251
64	Differential Code Bias Estimation using Multi-GNSS Observations and Global Ionosphere Maps. <i>Navigation, Journal of the Institute of Navigation</i> , 2014, 61, 191-201.	2.8	238
65	IRNSS-1A: signal and clock characterization of the Indian regional navigation system. <i>GPS Solutions</i> , 2014, 18, 147-152.	4.3	32
66	Short-arc tracklet association for geostationary objects. <i>Advances in Space Research</i> , 2014, 53, 1184-1194.	2.6	32
67	Two years of TanDEM-X baseline determination. <i>International Journal of Space Science and Engineering</i> , 2014, 2, 35.	0.1	2
68	Orbit and Clock Determination of QZS-1 Based on the CONGO Network. <i>Navigation, Journal of the Institute of Navigation</i> , 2013, 60, 31-40.	2.8	32
69	Initial assessment of the COMPASS/BeiDou-2 regional navigation satellite system. <i>GPS Solutions</i> , 2013, 17, 211-222.	4.3	308
70	(Near-)real-time orbit determination for GNSS radio occultation processing. <i>GPS Solutions</i> , 2013, 17, 199-209.	4.3	27
71	Estimation and Analysis of Two-Line Elements for Small Satellites. <i>Journal of Spacecraft and Rockets</i> , 2013, 50, 433-439.	1.9	22
72	Short-term analysis of GNSS clocks. <i>GPS Solutions</i> , 2013, 17, 295-307.	4.3	82

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73	Orbit and clock analysis of Compass GEO and IGSO satellites. <i>Journal of Geodesy</i> , 2013, 87, 515-525.	3.6	146
74	SRAMs SEL and SEU in-flight data from PROBA-II spacecraft. , 2013, , .		19
75	GPS Based Relative Navigation. , 2013, , 185-223.		14
76	The BeiDou Navigation Message. <i>The Journal of Global Positioning Systems</i> , 2013, 12, 1-12.	1.6	27
77	Flight Characterization of New Generation GNSS Satellite Clocks. <i>Navigation, Journal of the Institute of Navigation</i> , 2012, 59, 291-302.	2.8	25
78	Precision spacecraft navigation using a low-cost GPS receiver. <i>GPS Solutions</i> , 2012, 16, 519-529.	4.3	29
79	TerraSAR-X precise orbit determination with real-time GPS ephemerides. <i>Advances in Space Research</i> , 2012, 50, 549-559.	2.6	26
80	Inter-agency comparison of TanDEM-X baseline solutions. <i>Advances in Space Research</i> , 2012, 50, 260-271.	2.6	39
81	Apparent clock variations of the Block IIF-1 (SVN62) GPS satellite. <i>GPS Solutions</i> , 2012, 16, 303-313.	4.3	154
82	A multi-technique approach for characterizing the SVN49 signal anomaly, part 1: receiver tracking and IQ constellation. <i>GPS Solutions</i> , 2012, 16, 19-28.	4.3	27
83	A multi-technique approach for characterizing the SVN49 signal anomaly, part 2: chip shape analysis. <i>GPS Solutions</i> , 2012, 16, 29-39.	4.3	13
84	Characterization of Compass M-1 signals. <i>GPS Solutions</i> , 2012, 16, 117-126.	4.3	135
85	The ACES mission: System development and test status. <i>Acta Astronautica</i> , 2011, 69, 929-938.	3.2	46
86	Characterization of GPS/GIOVE sensor stations in the CONGO network. <i>GPS Solutions</i> , 2011, 15, 193-205.	4.3	69
87	Precise orbit determination of GIOVE-B based on the CONGO network. <i>Journal of Geodesy</i> , 2011, 85, 357-365.	3.6	47
88	Orbit Determination and Prediction of the International Space Station. <i>Journal of Spacecraft and Rockets</i> , 2011, 48, 1055-1067.	1.9	11
89	GPS Based Relative Navigation for the TanDEM-X Mission - First Flight Results. <i>Navigation, Journal of the Institute of Navigation</i> , 2011, 58, 293-304.	2.8	46
90	Relative navigation for the TanDEM-X mission and evaluation with dem calibration results. <i>Journal of Aerospace Engineering, Sciences and Applications</i> , 2011, 3, 28-38.	0.3	10

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91	The ACES GNSS subsystem and its applications. , 2010, , .		3
92	GPS-Based Spaceborne Autonomous Formation Flying Experiment (SAFE) on PRISMA: Initial Commissioning. , 2010, , .		7
93	GPS Orbit Determination for Micro-Satellites - The PROBA-2 Flight Experience. , 2010, , .		4
94	Differential GPS: An Enabling Technology for Formation Flying Satellites. , 2010, , 457-465.		13
95	TerraSAR-X Precise Trajectory Estimation and Quality Assessment. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 1859-1868.	6.3	95
96	Antenna phase center calibration for precise positioning of LEO satellites. GPS Solutions, 2009, 13, 23-34.	4.3	77
97	Kalman-filter-based GPS clock estimation for near real-time positioning. GPS Solutions, 2009, 13, 173-182.	4.3	108
98	Phase center modeling for LEO GPS receiver antennas and its impact on precise orbit determination. Journal of Geodesy, 2009, 83, 1145-1162.	3.6	129
99	GPS clock correction estimation for near real-time orbit determination applications. Aerospace Science and Technology, 2009, 13, 415-422.	4.8	24
100	Epochwise prediction of GPS single differenced ionospheric delays of formation flying spacecraft. Advances in Space Research, 2009, 44, 987-1001.	2.6	8
101	Spin rate estimation of sounding rockets using GPS wind-up. GPS Solutions, 2008, 12, 155-161.	4.3	9
102	Precision real-time navigation of LEO satellites using global positioning system measurements. GPS Solutions, 2008, 12, 187-198.	4.3	104
103	Tracking and orbit determination performance of the GRAS instrument on MetOp-A. GPS Solutions, 2008, 12, 289-299.	4.3	52
104	GPS-Based Relative Navigation During the Separation Sequence of the PRISMA Formation. , 2008, , .		8
105	Autonomous and Precise Navigation of the Proba-2 Spacecraft. , 2008, , .		12
106	Navigation and control of the TanDEM-X formation. Journal of the Astronautical Sciences, 2008, 56, 341-357.	1.5	53
107	GPS for Microsatellites " Status and Perspectives. , 2008, , 165-174.		12
108	GPS Based Attitude Determination for the Flying Laptop Satellite. , 2008, , 211-220.		13

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109	Status of GNSS reflectometry related receiver developments and feasibility studies within the German Indonesian Tsunami Early Warning System. , 2007, , .		9
110	Autonomous Formation Flying for the PRISMA Mission. Journal of Spacecraft and Rockets, 2007, 44, 671-681.	1.9	115
111	Radiation testing of commercial-off-the-shelf GPS technology for use on low earth orbit satellites. , 2007, , .		5
112	Relative Orbit Control Design for the PRISMA Formation Flying Mission. , 2006, , .		24
113	Low Earth orbit satellite navigation errors and vertical total electron content in single-frequency GPS tracking. Radio Science, 2006, 41, .	1.6	17
114	Proximity Operations of Formation-Flying Spacecraft Using an Eccentricity/Inclination Vector Separation. Journal of Guidance, Control, and Dynamics, 2006, 29, 554-563.	2.8	231
115	Performance comparison of semicodeless GPS receivers for LEO satellites. GPS Solutions, 2006, 10, 249-261.	4.3	59
116	GIOVE-A initial signal analysis. GPS Solutions, 2006, 10, 146-153.	4.3	20
117	E/I-vector separation for safe switching of the GRACE formation. Aerospace Science and Technology, 2006, 10, 628-635.	4.8	71
118	Reduced dynamic orbit determination using GPS code and carrier measurements. Aerospace Science and Technology, 2005, 9, 261-271.	4.8	171
119	Technology demonstration by the BIRD-mission. Acta Astronautica, 2005, 56, 57-63.	3.2	12
120	Precise GRACE baseline determination using GPS. GPS Solutions, 2005, 9, 21-31.	4.3	144
121	Rapid orbit determination of LEO satellites using IGS clock and ephemeris products. GPS Solutions, 2005, 9, 226-235.	4.3	48
122	Real-Time Navigation of Formation-Flying Spacecraft Using Global-Positioning-System Measurements. Journal of Guidance, Control, and Dynamics, 2005, 28, 226-235.	2.8	90
123	Global Positioning System Sensor with Instantaneous-Impact-Point Prediction for Sounding Rockets. Journal of Spacecraft and Rockets, 2004, 41, 644-650.	1.9	18
124	In-flight performance analysis of the CHAMP BlackJack GPS Receiver. GPS Solutions, 2003, 7, 74-86.	4.3	100
125	Kinematic GPS positioning of LEO satellites using ionosphere-free single frequency measurements. Aerospace Science and Technology, 2003, 7, 396-405.	4.8	80
126	Benchmark Testing for Spaceborne Global Positioning System Receivers. , 2003, , .		6

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127	A GPS Tracking System with Onboard IIP Prediction for Sounding Rockets. , 2003, , .		2
128	Onboard autonomy and fault protection concept of the BIRD satellite. , 2003, , .		1
129	Ionospheric Correction for GPS Tracking of LEO Satellites. Journal of Navigation, 2002, 55, 293-304.	1.7	48
130	GPS based prediction of the instantaneous impact point for sounding rockets. Aerospace Science and Technology, 2002, 6, 283-294.	4.8	27
131	A real-time kinematic GPS sensor for spacecraft relative navigation. Aerospace Science and Technology, 2002, 6, 435-449.	4.8	47
132	State interpolation for on-board navigation systems. Aerospace Science and Technology, 2001, 5, 209-220.	4.8	20
133	The BIRD Satellite Mission as a Milestone Toward GPS-based Autonomous Navigation. Navigation, Journal of the Institute of Navigation, 2001, 48, 69-75.	2.8	13
134	An epoch state filter for use with analytical orbit models of low earth satellites. Aerospace Science and Technology, 2000, 4, 277-287.	4.8	26
135	Satellite Orbits. , 2000, , .		552
136	Astronomy on the Personal Computer. , 2000, , .		33
137	Force Model. , 2000, , 53-116.		10
138	A study of New Collocation Control System. , 1998, , .		0
139	GPS based onboard and onground orbit operations for small satellites. Acta Astronautica, 1996, 39, 917-922.	3.2	16
140	Numerical integration methods for orbital motion. Celestial Mechanics and Dynamical Astronomy, 1992, 53, 59.	1.4	32
141	Precise Onboard Orbit Determination for LEO Satellites with Real-Time Orbit and Clock Corrections. , 0, , .		27
142	Flight Results of GPS-Based Attitude Determination for the Microsatellite Flying-Laptop. , 0, , .		2
143	Flight Results of GPS-Based Attitude Determination for the Canadian CASSIOPE Satellite. , 0, , .		1
144	Precise On-Board Navigation of LEO Satellites with GNSS Broadcast Ephemerides. , 0, , .		2

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145	Final commissioning of the PRISMA GPS navigation system. Journal of Aerospace Engineering, Sciences and Applications, 0, , 104-118.	0.3	11