Camilla Colombo

List of Publications by Year
in descending order

73 papers	977 citations	471061 17 h-index	552369 26 g-index
73 all docs	73 docs citations	73 times ranked	470 citing authors

#	Article	IF	Citations
1	Multicriteria Comparison Among Several Mitigation Strategies for Dangerous Near-Earth Objects. Journal of Guidance, Control, and Dynamics, 2009, 32, 121-142.	1.6	69
2	Optimal Impact Strategies for Asteroid Deflection. Journal of Guidance, Control, and Dynamics, 2008, 31, 858-872.	1.6	56
3	Orbital dynamics of high area-to-mass ratio spacecraft with J2 and solar radiation pressure for novel Earth observation and communication services. Acta Astronautica, 2012, 81, 137-150.	1.7	47
4	Semi-Analytical Solution for the Optimal Low-Thrust Deflection of Near-Earth Objects. Journal of Guidance, Control, and Dynamics, 2009, 32, 796-809.	1.6	37
5	Optimal low-thrust trajectories to asteroids through an algorithm based on differential dynamic programming. Celestial Mechanics and Dynamical Astronomy, 2009, 105, 75-112.	0.5	34
6	Orbital Dynamics of "Smart-Dust" Devices with Solar Radiation Pressure and Drag. Journal of Guidance, Control, and Dynamics, 2011, 34, 1613-1631.	1.6	34
7	A passive satellite deorbiting strategy for medium earth orbit using solar radiation pressure and the J2 effect. Acta Astronautica, 2012, 77, 197-206.	1.7	29
8	Analytical Model for the Propagation of Small-Debris-Object Clouds After Fragmentations. Journal of Guidance, Control, and Dynamics, 2015, 38, 1478-1491.	1.6	26
9	Electrochromic Orbit Control for Smart-Dust Devices. Journal of Guidance, Control, and Dynamics, 2012, 35, 1548-1558.	1.6	25
10	ReDSHIFT: A Global Approach to Space Debris Mitigation. Aerospace, 2018, 5, 64.	1.1	25
11	Effectiveness of GNSS disposal strategies. Acta Astronautica, 2014, 99, 292-302.	1.7	24
12	Orbit evolution, maintenance and disposal of SpaceChip swarms through electro-chromic control. Acta Astronautica, 2013, 82, 25-37.	1.7	20
13	Solar Radiation Pressure-Augmented Deorbiting: Passive End-of-Life Disposal from High-Altitude Orbits. Journal of Spacecraft and Rockets, 2013, 50, 1256-1267.	1.3	20
14	Orbit design for future SpaceChip swarm missions in a planetary atmosphere. Acta Astronautica, 2012, 75, 25-41.	1.7	19
15	Collision Probability Due to Space Debris Clouds Through a Continuum Approach. Journal of Guidance, Control, and Dynamics, 2016, 39, 2240-2249.	1.6	19
16	Asteroid rotation and orbit control via laser ablation. Advances in Space Research, 2016, 57, 1762-1782.	1.2	19
17	Multidimensional extension of the continuity equation method for debris clouds evolution. Advances in Space Research, 2016, 57, 1624-1640.	1.2	18
18	Long-term density evolution through semi-analytical and differential algebra techniques. Celestial Mechanics and Dynamical Astronomy, 2017, 128, 435-452.	0.5	18

#	ARTICLE	IF	CITATIONS
19	Spacecraft design optimisation for demise and survivability. Aerospace Science and Technology, 2018, 77, 638-657.	2.5	18
20	Sensitivity analysis of launch activities in Low Earth Orbit. Acta Astronautica, 2019, 158, 129-139.	1.7	18
21	Impact Hazard Protection Efficiency by a Small Kinetic Impactor. Journal of Spacecraft and Rockets, 2013, 50, 380-393.	1.3	17
22	Distant Retrograde Orbits for space-based Near Earth Objects detection. Advances in Space Research, 2016, 58, 967-988.	1.2	17
23	Towards a sustainable exploitation of the geosynchronous orbital region. Celestial Mechanics and Dynamical Astronomy, 2019, 131, 1.	0.5	17
24	Assessing the impact of space debris on orbital resource in life cycle assessment: A proposed method and case study. Science of the Total Environment, 2019, 667, 780-791.	3.9	17
25	A Novel Interferometric Microwave Radiometer Concept Using Satellite Formation Flight for Geostationary Atmospheric Sounding. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 3487-3498.	2.7	16
26	Analytical Framework for Space Debris Collision Avoidance Maneuver Design. Journal of Guidance, Control, and Dynamics, 2021, 44, 469-487.	1.6	16
27	Solar Radiation Pressure Hamiltonian Feedback Control for Unstable Libration-Point Orbits. Journal of Guidance, Control, and Dynamics, 2017, 40, 1374-1389.	1.6	15
28	Analytical Framework for Precise Relative Motion in Low Earth Orbits. Journal of Guidance, Control, and Dynamics, 2020, 43, 915-927.	1.6	15
29	Multi-criteria design of continuous global coverage Walker and Street-of-Coverage constellations through property assessment. Acta Astronautica, 2021, 188, 151-170.	1.7	15
30	A Multi-criteria Assessment of Deflection Methods for Dangerous NEOs. AIP Conference Proceedings, 2007, , .	0.3	14
31	Assessment of breakup severity on operational satellites. Advances in Space Research, 2016, 58, 1255-1274.	1.2	14
32	Long-Term Evolution of Highly-Elliptical Orbits: Luni-Solar Perturbation Effects for Stability and Re-entry. Frontiers in Astronomy and Space Sciences, 2019, 6, .	1.1	14
33	Transformation of Satellite Breakup Distribution for Probabilistic Orbital Collision Hazard Analysis. Journal of Guidance, Control, and Dynamics, 2021, 44, 88-105.	1.6	14
34	Optimal Law for Inclination Change in an Atmosphere Through Solar Sailing. Journal of Guidance, Control, and Dynamics, 2013, 36, 1310-1323.	1.6	13
35	Heliotropic dust rings for Earth climate engineering. Advances in Space Research, 2013, 51, 1132-1144.	1.2	13
36	End-of-life disposal concepts for Libration Point Orbit and Highly Elliptical Orbit missions. Acta Astronautica, 2015, 110, 298-312.	1.7	13

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37	Rarefied gas effects on the aerodynamics of high area-to-mass ratio spacecraft in orbit. Advances in Space Research, 2013, 51, 2112-2124.	1.2	12
38	Demisability and survivability sensitivity to design-for-demise techniques. Acta Astronautica, 2018, 145, 357-384.	1.7	12
39	Phase space description of the dynamics due to the coupled effect of the planetary oblateness and the solar radiation pressure perturbations. Celestial Mechanics and Dynamical Astronomy, 2019, 131, 1.	0.5	12
40	Design of optimal low-thrust manoeuvres for remote sensing multi-satellite formation flying in low Earth orbit. Advances in Space Research, 2021, 68, 4359-4378.	1.2	11
41	A comparative assessment of different deviation strategies for dangerous NEO. , 2006, , .		8
42	Low-thrust planar transfer for co-planar low Earth orbit satellites considering self-induced collision avoidance. Aerospace Science and Technology, 2020, 106, 106198.	2.5	8
43	Deorbiting spacecraft with passively stabilised attitude using a simplified quasi-rhombic-pyramid sail. Advances in Space Research, 2021, 67, 2561-2576.	1.2	8
44	Self-organising satellite constellation in geostationary earth orbit. IEEE Transactions on Aerospace and Electronic Systems, 2015, 51, 910-923.	2.6	7
45	Demise and Survivability Criteria for Spacecraft Design Optimization. Journal of Space Safety Engineering, 2016, 3, 83-93.	0.5	7
46	Wave-Like Patterns in an Elliptical Satellite Ring. Journal of Guidance, Control, and Dynamics, 2013, 36, 1767-1771.	1.6	6
47	Extension of the King-Hele orbit contraction method for accurate, semi-analytical propagation of non-circular orbits. Advances in Space Research, 2019, 64, 1-17.	1.2	6
48	Phase and Baseline Calibration for Microwave Interferometric Radiometers Using Beacons. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 5242-5253.	2.7	6
49	Impact probability computation of near-Earth objects using Monte Carlo line sampling and subset simulation. Celestial Mechanics and Dynamical Astronomy, 2020, 132, 1.	0.5	5
50	Predicting the vulnerability of spacecraft components: Modelling debris impact effects through vulnerable-zones. Advances in Space Research, 2020, 65, 2692-2710.	1.2	5
51	Propagation and Reconstruction of Reentry Uncertainties Using Continuity Equation and Simplicial Interpolation. Journal of Guidance, Control, and Dynamics, 2021, 44, 793-811.	1.6	5
52	Orbital Dynamics of Earth-Orbiting 'Smart Dust' Spacecraft Under the Effects of Solar Radiation Pressure and Aerodynamic Drag. , 2010, , .		5
53	Dynamics and control of high area-to-mass ratio spacecraft and its application to geomagnetic exploration. Acta Astronautica, 2018, 145, 424-437.	1.7	4
54	A Hexagonal Pseudo-polar FFT for Formation-Flying Interferometric Radiometry. IEEE Geoscience and Remote Sensing Letters, 2019, 16, 432-436.	1.4	4

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55	Introducing MISS, a new tool for collision avoidance analysis and design. Journal of Space Safety Engineering, 2020, 7, 282-289.	0.5	4
56	Dynamical taxonomy of the coupled solar radiation pressure and oblateness problem and analytical deorbiting configurations. Celestial Mechanics and Dynamical Astronomy, 2020, 132, 1.	0.5	4
57	Attitude and orbit coupling of planar helio-stable solar sails. Celestial Mechanics and Dynamical Astronomy, 2019, 131, 1.	0.5	3
58	Comparison of continuity equation and Gaussian mixture model for long-term density propagation using semi-analytical methods. Celestial Mechanics and Dynamical Astronomy, 2022, 134, .	0.5	3
59	Space debris through the prism of the environmental performance of space systems: the case of Sentinel-3 redesigned mission. Journal of Space Safety Engineering, 2020, 7, 198-205.	0.5	2
60	Constrained optimisation of preliminary spacecraft configurations under the design-for-demise paradigm. Journal of Space Safety Engineering, 2021, 8, 63-74.	0.5	2
61	Small Debris Fragments Contribution to Collision Probability for Spacecraft in Low Earth Orbits. , 2015, , 379-387.		2
62	Re-entry prediction and demisability analysis for the atmospheric disposal of geosynchronous satellites. Advances in Space Research, 2021, 68, 4321-4335.	1.2	2
63	Kustaanheimoâ€"Stiefel Variables for Planetary Protection Compliance Analysis. Journal of Guidance, Control, and Dynamics, 2022, 45, 1286-1298.	1.6	2
64	Geostationary atmospheric sounding1 by formation flight aperture synthesis. , 2017, , .		1
65	An FFT-Based CLEAN Deconvolution Method for Interferometric Microwave Radiometers With Spatially Variable Beam Pattern. IEEE Geoscience and Remote Sensing Letters, 2021, 18, 341-345.	1.4	1
66	Heliotropic frozen orbits design for high area-to-mass ratio spacecraft. Journal of Astronomical Telescopes, Instruments, and Systems, 2019, 5, 1.	1.0	1
67	A decentralised approach for formation flying reconfiguration and maintenance using GNSS-based navigation. , 2022, , .		1
68	B-plane and Picardâ€"Chebyshev integration method: Surfing complex orbital perturbations in interplanetary multi-flyby trajectories. Acta Astronautica, 2022, 194, 216-228.	1.7	1
69	Interface between the long-term propagation and the destructive re-entry phases exploiting the overshoot boundary. Journal of Space Safety Engineering, 2022, , .	0.5	1
70	Different perspectives on the b-plane: perturbation effects and use for resonant flyby design. Celestial Mechanics and Dynamical Astronomy, 2022, 134, 1.	0.5	1
71	Mission Analysis of Hevelius - Lunar Microsatellit.... , 2005, , .		0
72	Trajectory Optimization in Hevelius - Lunar Micros.... , 2005, , .		0

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73	Halo Orbit Determination in Mission Analysis of He…. , 2005, , .		0