

# Aurelien D G Hees

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

53  
papers

1,421  
citations

23  
h-index

37  
g-index

59  
ext. papers

1,891  
ext. citations

5.8  
avg, IF

4.71  
L-index

#	Paper	IF	Citations
53	Constraining velocity-dependent Lorentz and CPT violations using lunar laser ranging. <i>Physical Review D</i> , <b>2021</b> , 103,	4.9	2
52	The local dark sector. <i>Experimental Astronomy</i> , <b>2021</b> , 51, 1737	1.3	0
51	Searching for Dark Matter with an Optical Cavity and an Unequal-Delay Interferometer. <i>Physical Review Letters</i> , <b>2021</b> , 126, 051301	7.4	6
50	Search for a Variation of the Fine Structure Constant around the Supermassive Black Hole in Our Galactic Center. <i>Physical Review Letters</i> , <b>2020</b> , 124, 081101	7.4	13
49	A population of dust-enshrouded objects orbiting the Galactic black hole. <i>Nature</i> , <b>2020</b> , 577, 337-340	50.4	24
48	A Hidden Friend for the Galactic Center Black Hole, Sgr A*. <i>Astrophysical Journal Letters</i> , <b>2020</b> , 888, L8	7.9	19
47	AEDGE: Atomic Experiment for Dark Matter and Gravity Exploration in Space. <i>EPJ Quantum Technology</i> , <b>2020</b> , 7,	6.9	76
46	Search for transient variations of the fine structure constant and dark matter using fiber-linked optical atomic clocks. <i>New Journal of Physics</i> , <b>2020</b> , 22, 093010	2.9	30
45	Improving Orbit Estimates for Incomplete Orbits with a New Approach to Priors: with Applications from Black Holes to Planets. <i>Astronomical Journal</i> , <b>2019</b> , 158, 4	4.9	11
44	The Galactic Center: Improved Relative Astrometry for Velocities, Accelerations, and Orbits near the Supermassive Black Hole. <i>Astrophysical Journal</i> , <b>2019</b> , 873, 9	4.7	14
43	The Galactic Center: An Improved Astrometric Reference Frame for Stellar Orbits around the Supermassive Black Hole. <i>Astrophysical Journal</i> , <b>2019</b> , 873, 65	4.7	12
42	Use of Geodesy and Geophysics Measurements to Probe the Gravitational Interaction. <i>Fundamental Theories of Physics</i> , <b>2019</b> , 317-358	0.8	1
41	A new test of gravitational redshift using Galileo satellites: The GREAT experiment. <i>Comptes Rendus Physique</i> , <b>2019</b> , 20, 176-182	1.4	6
40	Relativistic redshift of the star S0-2 orbiting the Galactic Center supermassive black hole. <i>Science</i> , <b>2019</b> , 365, 664-668	33.3	131
39	Consistency of the Infrared Variability of SGR A* over 22 yr. <i>Astrophysical Journal Letters</i> , <b>2019</b> , 882, L287.9		6
38	An Adaptive Scheduling Tool to Optimize Measurements to Reach a Scientific Objective: Methodology and Application to Measurements of Stellar Orbits in the Galactic Center. <i>Astrophysical Journal</i> , <b>2019</b> , 880, 87	4.7	4
37	New Test of Lorentz Invariance Using the MICROSCOPE Space Mission. <i>Physical Review Letters</i> , <b>2019</b> , 123, 231102	7.4	5

36	Investigating the Binariness of S0-2: Implications for Its Origins and Robustness as a Probe of the Laws of Gravity around a Supermassive Black Hole. <i>Astrophysical Journal</i> , <b>2018</b> , 854, 12	4.7	36
35	Confusing Binaries: The Role of Stellar Binaries in Biasing Disk Properties in the Galactic Center. <i>Astrophysical Journal Letters</i> , <b>2018</b> , 853, L24	7.9	21
34	Gravitational Redshift Test Using Eccentric Galileo Satellites. <i>Physical Review Letters</i> , <b>2018</b> , 121, 231101	7.4	65
33	Violation of the equivalence principle from light scalar dark matter. <i>Physical Review D</i> , <b>2018</b> , 98,	4.9	40
32	Clocks in Space for Tests of Fundamental Physics. <i>Space Science Reviews</i> , <b>2017</b> , 212, 1385-1421	7.5	12
31	Emergent gravity in galaxies and in the Solar System. <i>Physical Review D</i> , <b>2017</b> , 95,	4.9	9
30	The Post-periastron Evolution of Galactic Center Source G1: The Second Case of a Resolved Tidal Interaction with a Supermassive Black Hole. <i>Astrophysical Journal</i> , <b>2017</b> , 847, 80	4.7	22
29	Lorentz Symmetry Violations from Matter-Gravity Couplings with Lunar Laser Ranging. <i>Physical Review Letters</i> , <b>2017</b> , 119, 201102	7.4	32
28	Testing General Relativity with Stellar Orbits around the Supermassive Black Hole in Our Galactic Center. <i>Physical Review Letters</i> , <b>2017</b> , 118, 211101	7.4	95
27	Local tests of gravitation with Gaia observations of Solar System Objects. <i>Proceedings of the International Astronomical Union</i> , <b>2017</b> , 12, 63-66	0.1	1
26	Clocks in Space for Tests of Fundamental Physics. <i>Space Sciences Series of ISSI</i> , <b>2017</b> , 7-43	0.1	
25	Searching for an Oscillating Massive Scalar Field as a Dark Matter Candidate Using Atomic Hyperfine Frequency Comparisons. <i>Physical Review Letters</i> , <b>2016</b> , 117, 061301	7.4	90
24	Combined Solar system and rotation curve constraints on MOND. <i>Monthly Notices of the Royal Astronomical Society</i> , <b>2016</b> , 455, 449-461	4.3	55
23	Tests of Lorentz Symmetry in the Gravitational Sector. <i>Universe</i> , <b>2016</b> , 2, 30	2.5	53
22	Statistical Challenges in fitting stellar orbits around the super-massive black hole at the Galactic center. <i>Proceedings of the International Astronomical Union</i> , <b>2016</b> , 11, 239-240	0.1	
21	Test of the Equivalence Principle in the Dark sector on galactic scales. <i>Journal of Cosmology and Astroparticle Physics</i> , <b>2016</b> , 2016, 032-032	6.4	10
20	Lorentz symmetry and very long baseline interferometry. <i>Physical Review D</i> , <b>2016</b> , 94,	4.9	23
19	Testing Lorentz Symmetry with Lunar Laser Ranging. <i>Physical Review Letters</i> , <b>2016</b> , 117, 241301	7.4	36

18	Dilatons with intrinsic decouplings. <i>Physical Review D</i> , <b>2016</b> , 94,	4.9	9
17	Observables in theories with a varying fine structure constant. <i>General Relativity and Gravitation</i> , <b>2015</b> , 47, 1	2.3	7
16	Test of the gravitational redshift with stable clocks in eccentric orbits: application to Galileo satellites 5 and 6. <i>Classical and Quantum Gravity</i> , <b>2015</b> , 32, 232003	3.3	50
15	Testing Lorentz symmetry with planetary orbital dynamics. <i>Physical Review D</i> , <b>2015</b> , 92,	4.9	42
14	CAN THE CHAMELEON MECHANISM EXPLAIN COSMIC ACCELERATION WHILE SATISFYING SOLAR SYSTEM CONSTRAINTS? <b>2015</b> ,		2
13	Light propagation in the field of a moving axisymmetric body: Theory and applications to the Juno mission. <i>Physical Review D</i> , <b>2014</b> , 90,	4.9	20
12	Relativistic formulation of coordinate light time, Doppler, and astrometric observables up to the second post-Minkowskian order. <i>Physical Review D</i> , <b>2014</b> , 89,	4.9	25
11	Late-time cosmology of a scalar-tensor theory with a universal multiplicative coupling between the scalar field and the matter Lagrangian. <i>Physical Review D</i> , <b>2014</b> , 90,	4.9	34
10	Constraints on modified Newtonian dynamics theories from radio tracking data of the Cassini spacecraft. <i>Physical Review D</i> , <b>2014</b> , 89,	4.9	84
9	Breaking of the equivalence principle in the electromagnetic sector and its cosmological signatures. <i>Physical Review D</i> , <b>2014</b> , 90,	4.9	48
8	Intrinsic Solar System decoupling of a scalar-tensor theory with a universal coupling between the scalar field and the matter Lagrangian. <i>Physical Review D</i> , <b>2013</b> , 88,	4.9	23
7	Combined cosmological and solar system constraints on chameleon mechanism. <i>Physical Review D</i> , <b>2012</b> , 85,	4.9	31
6	Fab Four: When John and George Play Gravitation and Cosmology. <i>Advances in Astronomy</i> , <b>2012</b> , 2012, 1-14	0.9	37
5	Radioscience simulations in general relativity and in alternative theories of gravity. <i>Classical and Quantum Gravity</i> , <b>2012</b> , 29, 235027	3.3	35
4	A relativistic motion integrator: numerical accuracy and illustration with BepiColombo and Mars-NEXT. <i>Proceedings of the International Astronomical Union</i> , <b>2009</b> , 5, 144-146	0.1	1
3	Vibrating systems in Schwarzschild spacetime: toward new experiments in gravitation?. <i>Classical and Quantum Gravity</i> , <b>2009</b> , 26, 185006	3.3	4
2	The motion of vibrating systems in Schwarzschild spacetime. <i>Proceedings of the International Astronomical Union</i> , <b>2009</b> , 5, 147-151	0.1	1
1	Exploring the foundations of the physical universe with space tests of the equivalence principle. <i>Experimental Astronomy</i> , 1	1.3	2

