

Lawrence M Widrow

List of Publications by Year in descending order

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81
papers

7,161
citations

109321

35
h-index

74163

75
g-index

81
all docs

81
docs citations

81
times ranked

4874
citing authors

#	ARTICLE	IF	CITATIONS
1	Sterile neutrinos as dark matter. <i>Physical Review Letters</i> , 1994, 72, 17-20.	7.8	1,039
2	Inflation-produced, large-scale magnetic fields. <i>Physical Review D</i> , 1988, 37, 2743-2754.	4.7	819
3	Origin of galactic and extragalactic magnetic fields. <i>Reviews of Modern Physics</i> , 2002, 74, 775-823.	45.6	724
4	The remnants of galaxy formation from a panoramic survey of the region around M31. <i>Nature</i> , 2009, 461, 66-69.	27.8	497
5	A vast, thin plane of corotating dwarf galaxies orbiting the Andromeda galaxy. <i>Nature</i> , 2013, 493, 62-65.	27.8	396
6	GALACTOSEISMOLOGY: DISCOVERY OF VERTICAL WAVES IN THE GALACTIC DISK. <i>Astrophysical Journal Letters</i> , 2012, 750, L41.	8.3	245
7	Galaxy masses. <i>Reviews of Modern Physics</i> , 2014, 86, 47-119.	45.6	226
8	Equilibrium Disk+ Bulge+ Halo Models for the Milky Way and Andromeda Galaxies. <i>Astrophysical Journal</i> , 2005, 631, 838-855.	4.5	202
9	Bubble nucleation in first-order inflation and other cosmological phase transitions. <i>Physical Review D</i> , 1992, 46, 2384-2403.	4.7	192
10	The First Magnetic Fields. <i>Space Science Reviews</i> , 2012, 166, 37-70.	8.1	191
11	Dynamical Blueprints for Galaxies. <i>Astrophysical Journal</i> , 2008, 679, 1239-1259.	4.5	176
12	Using the Schroedinger Equation to Simulate Collisionless Matter. <i>Astrophysical Journal</i> , 1993, 416, L71.	4.5	172
13	THE LUMINOSITY PROFILE AND STRUCTURAL PARAMETERS OF THE ANDROMEDA GALAXY. <i>Astrophysical Journal</i> , 2011, 739, 20.	4.5	156
14	Gauged Qballs. <i>Physical Review D</i> , 1989, 39, 1665-1673.	4.7	144
15	PAndAS™ CUBS: DISCOVERY OF TWO NEW DWARF GALAXIES IN THE SURROUNDINGS OF THE ANDROMEDA AND TRIANGULUM GALAXIES. <i>Astrophysical Journal</i> , 2009, 705, 758-765.	4.5	118
16	The Large-scale Structure of the Halo of the Andromeda Galaxy. II. Hierarchical Structure in the Pan-Andromeda Archaeological Survey. <i>Astrophysical Journal</i> , 2018, 868, 55.	4.5	113
17	Bending and breathing modes of the Galactic disc. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 440, 1971-1981.	4.4	110
18	Distribution Functions for Cuspy Dark Matter Density Profiles. <i>Astrophysical Journal, Supplement Series</i> , 2000, 131, 39-46.	7.7	85

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19	Homogeneous Cosmological Models and New Inflation. <i>Physical Review Letters</i> , 1986, 57, 2237-2240.	7.8	72
20	General-relativistic domain walls. <i>Physical Review D</i> , 1989, 39, 3571-3575.	4.7	69
21	The graininess of dark matter haloes. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 394, 641-659.	4.4	64
22	Disk+ Bulge+ Halo Models for the Andromeda Galaxy. <i>Astrophysical Journal</i> , 2003, 588, 311-325.	4.5	59
23	The Sagittarius stream and halo triaxiality. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 428, 912-922.	4.4	58
24	On Universal Halos and the Radial Orbit Instability. <i>Astrophysical Journal</i> , 2006, 653, 43-52.	4.5	56
25	THE PHOTOMETRIC PROPERTIES OF A VAST STELLAR SUBSTRUCTURE IN THE OUTSKIRTS OF M33. <i>Astrophysical Journal</i> , 2010, 723, 1038-1052.	4.5	55
26	Baryon-symmetric baryogenesis. <i>Physical Review Letters</i> , 1990, 64, 340-343.	7.8	54
27	A Possible Mechanism for Generating Galactic Magnetic Fields. <i>Astrophysical Journal</i> , 2000, 540, 755-764.	4.5	51
28	Peaks above the Maxwellian Sea: a new approach to finding substructures in N-body haloes. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011, 418, 320-335.	4.4	51
29	Dynamics of thick domain walls. <i>Physical Review D</i> , 1989, 40, 1002-1010.	4.7	50
30	Baryogenesis in a baryon-symmetric universe. <i>Physical Review D</i> , 1990, 42, 326-342.	4.7	49
31	The Bulge-Halo Connection in Galaxies: A Physical Interpretation of the $V_c - \dot{M}$ Relation. <i>Astrophysical Journal</i> , 2007, 655, L21-L24.	4.5	49
32	A NEW APPROACH TO DETAILED STRUCTURAL DECOMPOSITION FROM THE SPLASH AND PHAT SURVEYS: KICKED-UP DISK STARS IN THE ANDROMEDA GALAXY?. <i>Astrophysical Journal</i> , 2013, 779, 103.	4.5	49
33	Substructure around M31: Evolution and Effects. <i>Astrophysical Journal</i> , 2006, 653, 1180-1193.	4.5	48
34	Bending waves in the Milky Way's disc from halo substructure. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 480, 4244-4258.	4.4	48
35	Emergence of the <i>Gaia</i> phase space spirals from bending waves. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 484, 1050-1056.	4.4	45
36	Cosmological texture is sensitive to Planck-scale physics. <i>Physical Review Letters</i> , 1992, 69, 1489-1492.	7.8	34

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37	Self-Similar Relaxation of Self-Gravitating Collisionless Particles. <i>Physical Review Letters</i> , 1997, 78, 3426-3429.	7.8	34
38	ESTIMATING THE GALACTIC MASS PROFILE IN THE PRESENCE OF INCOMPLETE DATA. <i>Astrophysical Journal</i> , 2015, 806, 54.	4.5	33
39	Galactoseismology and the local density of dark matter. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 464, 3775-3783.	4.4	33
40	Formation of LISA Black Hole Binaries in Merging Dwarf Galaxies: The Imprint of Dark Matter. <i>Astrophysical Journal Letters</i> , 2018, 864, L19.	8.3	33
41	The effect of bars on the $M\text{-}\dot{M}$ relation: offset, scatter and residuals correlations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 441, 1243-1259.	4.4	30
42	Fine Structure of Dark Matter Halos and its Effect on Terrestrial Detection Experiments. <i>Physical Review Letters</i> , 2003, 90, 211301.	7.8	27
43	Spontaneous generation of bending waves in isolated Milky Way-like discs. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 472, 2751-2763.	4.4	27
44	The Milky Way's Shell Structure Reveals the Time of a Radial Collision. <i>Astrophysical Journal</i> , 2020, 902, 119.	4.5	27
45	Gravitational production of scalar particles in inflationary-universe models. <i>Physical Review D</i> , 1988, 37, 3428-3437.	4.7	25
46	Power spectrum for the small-scale Universe. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 397, 1275-1285.	4.4	25
47	Vertical oscillations of fluid and stellar discs. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 450, 266-276.	4.4	23
48	The stellar distribution function and local vertical potential from <i>Gaia</i> DR2. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 503, 1586-1598.	4.4	22
49	Collapse of nearly spherical domain walls. <i>Physical Review D</i> , 1989, 39, 3576-3578.	4.7	21
50	Testbed Simulations of Collisionless, Self-Gravitating Systems Using the Schrodinger Method. <i>Astrophysical Journal</i> , 1997, 485, 484-495.	4.5	21
51	Evolution of nonspherical bubbles. <i>Physical Review D</i> , 1990, 41, 347-353.	4.7	20
52	Subhaloes in scale-free cosmologies. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 395, 1950-1962.	4.4	20
53	Incorporating streams into Milky Way models. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 439, 2678-2686.	4.4	19
54	Microwave distortions from collapsing domain-wall bubbles. <i>Astrophysical Journal</i> , 1991, 367, L43.	4.5	19

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55	DYNAMICAL MODELS FOR NGC 6503 USING A MARKOV CHAIN MONTE CARLO TECHNIQUE. <i>Astrophysical Journal</i> , 2010, 715, 1152-1169.	4.5	15
56	Searching for MACHOs (and Other Dark Matter Candidates) in a Simulated Galaxy. <i>Astrophysical Journal</i> , 1998, 504, 12-26.	4.5	14
57	Dynamical Models for Disk Galaxies with Triaxial Halos. <i>Astrophysical Journal</i> , 2008, 679, 1232-1238.	4.5	13
58	Eigenfunctions of Galactic phase space spirals from dynamic mode decomposition. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 490, 114-123.	4.4	13
59	Are cosmic strings frustrated?. <i>Physical Review D</i> , 1988, 38, 1100-1107.	4.7	12
60	False-vacuum decay in time-dependent and two-field models. <i>Physical Review D</i> , 1991, 44, 2306-2313.	4.7	10
61	An Observational Test of Dark Matter as Cold Fractal Clouds. <i>Astrophysical Journal</i> , 2000, 529, 77-87.	4.5	8
62	Modeling collisionless matter in general relativity: A new numerical technique. <i>Physical Review D</i> , 1997, 55, 5997-6001.	4.7	7
63	Old inflation and anisotropy. <i>Nature</i> , 1987, 326, 206-206.	27.8	6
64	Simulating a slow bar in the low surface brightness galaxy UGC 628. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 463, 1751-1758.	4.4	6
65	Zero modes and anomalies in superconducting strings. <i>Physical Review D</i> , 1988, 38, 1684-1700.	4.7	5
66	HST Imaging of MEGA Microlensing Candidates in M31. <i>Astrophysical Journal</i> , 2005, 633, L105-L108.	4.5	5
67	Disc-halo interactions in Λ CDM. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 476, 198-209.	4.4	5
68	Multiresolution Analysis of Substructure in Dark Matter Halos. <i>Astrophysical Journal</i> , 2002, 578, 689-701.	4.5	4
69	Can stellar discs in a cosmological setting avoid forming strong bars?. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 486, 523-537.	4.4	4
70	Microlensing by a Prolate Λ -MACHO Halo. <i>Astrophysical Journal</i> , 1996, 473, 828-833.	4.5	2
71	Tracing the Galactic Halo: Obtaining Bayesian mass estimates of the Galaxy in the presence of incomplete data. <i>Proceedings of the International Astronomical Union</i> , 2015, 11, 296-297.	0.0	2
72	Estimate of the Mass and Radial Profile of the Orphan-Chenab Stream's Dwarf-galaxy Progenitor Using MilkyWay@home. <i>Astrophysical Journal</i> , 2022, 926, 106.	4.5	2

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73	Constraints on Cold H in the Halo of NGC 3079 from Absorption Measurements of Q0957+561. Publications of the Astronomical Society of Australia, 1999, 16, 89-94.	3.4	1
74	Warps, Waves, and Phase Spirals in the Milky Way. Proceedings of the International Astronomical Union, 2019, 14, 65-70.	0.0	1
75	Inferring time-dependent distribution functions from kinematic snapshots. Monthly Notices of the Royal Astronomical Society, 2021, 506, 3098-3110.	4.4	1
76	GALACTIC MODELS AND THE SEARCH FOR DARK MATTER. , 2005, , .		0
77	The V_c vs f_0 relation of galaxies. Proceedings of the International Astronomical Union, 2007, 3, 227-230.	0.0	0
78	Galactic wave mechanics. Nature Physics, 2014, 10, 477-478.	16.7	0
79	Galactoseismology in the Age of Gaia. Proceedings of the International Astronomical Union, 2017, 13, 189-194.	0.0	0
80	Streams and the Milky Way dark matter halo. Proceedings of the International Astronomical Union, 2019, 14, 75-82.	0.0	0
81	HIERARCHICAL CLUSTERING MODELS AND THE DIRECT DETECTION OF WIMPS AND AXIONS. , 2003, , .		0