Amir Levinson

List of Publications by Year
in descending order

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103 papers	2,876 citations	147566 31 h-index	189595 50 g-index
105 all docs	105 docs citations	105 times ranked	2956 citing authors

#	Article	IF	Citations
1	The Response of Black Hole Spark Gaps to External Changes: A Production Mechanism of Rapid TeV Flares?. Astrophysical Journal, 2022, 924, 28.	1.6	7
2	Electromagnetic Fireworks: Fast Radio Bursts from Rapid Reconnection in the Compressed Magnetar Wind. Astrophysical Journal Letters, 2022, 932, L20.	3.0	18
3	Spherical Shocks in a Steep Density Gradient of Expanding Media. Astrophysical Journal, 2021, 907, 113.	1.6	2
4	Intermittent mildly magnetized jets as the source of GRBs. Monthly Notices of the Royal Astronomical Society, 2021, 504, 3947-3955.	1.6	19
5	GRMHD simulations of BH activation by small scale magnetic loops: formation of striped jets and active coronae. Monthly Notices of the Royal Astronomical Society, 2021, 508, 1241-1252.	1.6	28
6	Intermittent hydrodynamic jets in collapsars do not produce GRBs. Monthly Notices of the Royal Astronomical Society, 2020, 495, 570-577.	1.6	26
7	Physics of radiation mediated shocks and its applications to GRBs, supernovae, and neutron star mergers. Physics Reports, 2020, 866, 1-46.	10.3	38
8	BALQSO spectra explained by shock disruption of galactic clouds. Monthly Notices of the Royal Astronomical Society, 2020, 491, 4325-4333.	1.6	6
9	Monte Carlo simulations of relativistic radiation-mediated shocks: II. photon-starved regime. Monthly Notices of the Royal Astronomical Society, 2020, 492, 1902-1913.	1.6	9
10	Monte Carlo simulations of fast Newtonian and mildly relativistic shock breakout from a stellar wind. Monthly Notices of the Royal Astronomical Society, 2020, 499, 4961-4971.	1.6	10
11	Comprehensive Analysis of Magnetospheric Gaps around Kerr Black Holes Using 1D GRPIC Simulations. Astrophysical Journal, 2020, 902, 80.	1.6	25
12	Plasma kinetic effects in relativistic radiation-mediated shocks. Physical Review E, 2020, 102, 063210.	0.8	9
13	High efficiency photospheric emission entailed by formation of a collimation shock in gamma-ray bursts. Monthly Notices of the Royal Astronomical Society, 2019, 488, 1416-1426.	1.6	38
14	Prospects for multi-messenger extended emission from core-collapse supernovae in the Local Universe. European Physical Journal Plus, 2019, 134, 1.	1.2	10
15	The spectrum of a fast shock breakout from a stellar wind. Monthly Notices of the Royal Astronomical Society, 2019, 484, 3502-3509.	1.6	12
16	Multi-messenger Extended Emission from the Compact Remnant in GW170817. Astrophysical Journal Letters, 2019, 876, L2.	3.0	12
17	Numerical simulations of AGN wind feedback on black hole accretion: probing down to scales within the sphere of influence. Monthly Notices of the Royal Astronomical Society, 2019, 482, 4642-4653.	1.6	7
18	Radio Galaxies at VHE Energies. Galaxies, 2018, 6, 116.	1.1	36

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19	Particle-in-cell simulations of pair discharges in a starved magnetosphere of a Kerr black hole. Astronomy and Astrophysics, 2018, 616, A184.	2.1	48
20	Relativistic shock breakout from a stellar wind. Monthly Notices of the Royal Astronomical Society, 2018, 476, 5453-5463.	1.6	14
21	Limits on the growth rate of supermassive black holes at early cosmic epochs. Monthly Notices of the Royal Astronomical Society, 2018, 473, 2673-2678.	1.6	5
22	Monte Carlo simulations of relativistic radiation-mediated shocks â€“ I. Photon-rich regime. Monthly Notices of the Royal Astronomical Society, 2018, 474, 2828-2851.	1.6	25
23	Existence of steady gap solutions in rotating black hole magnetospheres. Physical Review D, 2017, 96, .	1.6	33
24	Dynamics of relativistic shock waves subject to a strong radiation drag: Similarity solutions and numerical simulations. Physics of Fluids, 2017, 29, 087105.	1.6	1
25	The collimation of magnetic jets by disc winds. Monthly Notices of the Royal Astronomical Society, 2016, 461, 2605-2615.	1.6	29
26	The effect of Compton drag on the dynamics of dissipative Poynting-dominated flows: implications for the unification of radio loud AGN. Monthly Notices of the Royal Astronomical Society, 2016, 458, 2269-2274.	1.6	14
27	BROADBAND EXTENDED EMISSION IN GRAVITATIONAL WAVES FROM CORE-COLLAPSE SUPERNOVAE. Astrophysical Journal, 2015, 812, 124.	1.6	5
28	BLAZAR FLARES FROM COMPTON DRAGGED SHELLS. Astrophysical Journal, 2015, 809, 23.	1.6	3
29	On the origin of short GRBs with extended emission and long GRBs without associated SN. Monthly Notices of the Royal Astronomical Society: Letters, 2014, 444, L58-L62.	1.2	26
30	JET FORMATION IN GRBs: A SEMI-ANALYTIC MODEL OF MHD FLOW IN KERR GEOMETRY WITH REALISTIC PLASMA INJECTION. Astrophysical Journal, 2014, 796, 26.	1.6	31
31	SUB-PHOTOSPHERIC, RADIATION-MEDIATED SHOCKS IN GAMMA-RAY BURSTS: MULTIPLE SHOCK EMISSION AND THE BAND SPECTRUM. Astrophysical Journal, 2014, 789, 128.	1.6	17
32	PLASMA INJECTION AND OUTFLOW FORMATION IN KERR BLACK HOLES. International Journal of Modern Physics Conference Series, 2014, 28, 1460164.	0.7	2
33	ULTRA-RELATIVISTIC, NEUTRINO-DRIVEN FLOWS IN GAMMA-RAY BURSTS: A DOUBLE TRANSONIC FLOW SOLUTION IN A SCHWARZSCHILD SPACETIME. Astrophysical Journal, 2013, 770, 159.	1.6	18
34	Loaded magnetohydrodynamic flows in Kerr spacetime. Physical Review D, 2013, 88, .	1.6	23
35	COLLIMATION AND CONFINEMENT OF MAGNETIC JETS BY EXTERNAL MEDIA. Astrophysical Journal, 2013, 764, 148.	1.6	32
36	OBSERVATIONAL SIGNATURES OF SUB-PHOTOSPHERIC RADIATION-MEDIATED SHOCKS IN THE PROMPT PHASE OF GAMMA-RAY BURSTS. Astrophysical Journal, 2012, 756, 174.	1.6	44

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37	VARIABLE TeV EMISSION AS A MANIFESTATION OF JET FORMATION IN M87?. Astrophysical Journal, 2011, 730, 123.	1.6	122
38	SUB-PHOTOSPHERIC EMISSION FROM RELATIVISTIC RADIATION MEDIATED SHOCKS IN GRBs. Astrophysical Journal, 2011, 733, 85.	1.6	29
39	Relativistic jets at high energies. Proceedings of the International Astronomical Union, 2010, 6, 24-31.	0.0	0
40	INTERACTION OF A MAGNETIZED SHELL WITH AN AMBIENT MEDIUM: LIMITS ON IMPULSIVE MAGNETIC ACCELERATION. Astrophysical Journal, 2010, 720, 1490-1499.	1.6	17
41	JETS ON ALL SCALES. International Journal of Modern Physics D, 2010, 19, 649-657.	0.9	2
42	Relativistic Rayleighâ€“Taylor instability of a decelerating shell and its implications for gamma-ray bursts. Geophysical and Astrophysical Fluid Dynamics, 2010, 104, 85-111.	0.4	11
43	RECOLLIMATION AND RADIATIVE FOCUSING OF RELATIVISTIC JETS: APPLICATIONS TO BLAZARS AND M87. Astrophysical Journal, 2009, 699, 1274-1280.	1.6	82
44	Probing Cosmic Accelerators Using VHE Gamma Rays and UHE Cosmic Rays. Nuclear Physics A, 2009, 827, 561c-566c.	0.6	0
45	CONVECTIVE INSTABILITY OF A RELATIVISTIC EJECTA DECELERATED BY A SURROUNDING MEDIUM: AN ORIGIN OF MAGNETIC FIELDS IN GAMMA-RAY BURSTS?. Astrophysical Journal, 2009, 705, L213-L216.	1.6	21
46	Structure and nuclear composition of general relativistic, magnetohydrodynamic outflows from neutrino-cooled disks. New Astronomy, 2008, 13, 386-394.	0.8	12
47	COLLIMATION AND RADIATIVE DECELERATION OF JETS IN TEV AGNs. International Journal of Modern Physics D, 2008, 17, 1603-1610.	0.9	6
48	Phenomenology of Gamma-Ray Jets. AIP Conference Proceedings, 2008, , .	0.3	0
49	Relativistic Photon Mediated Shocks. Physical Review Letters, 2008, 100, 131101.	2.9	45
50	Focusing of Relativistic Cooling Jets. , 2008, , .		0
51	Neutrinoâ€Driven Mass Loading of GRMHD Outflows. , 2007, , .		0
52	Hydrodynamic Collimation of Relativistic Outflows: Semianalytic Solutions and Application to Gammaâ€Ray Bursts. Astrophysical Journal, 2007, 671, 678-688.	1.6	44
53	On the Origin of Rapid Flares in TeV Blazars. Astrophysical Journal, 2007, 671, L29-L32.	1.6	34
54	Are the Radiative Properties of Long Gamma-Ray Bursts Universal?. Astrophysical Journal, 2006, 649, L5-L8.	1.6	12

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55	Radio and Optical Followâ€up Observations of a Uniform Radio Transient Search: Implications for Gammaâ€Ray Bursts and Supernovae. Astrophysical Journal, 2006, 639, 331-339.	1.6	101
56	General Relativistic, Neutrinoâ€assisted Magnetohydrodynamic Windsâ€"Theory and Application to Gammaâ€Ray Bursts. I. Schwarzschild Geometry. Astrophysical Journal, 2006, 648, 510-522.	1.6	29
57	The planets capture model of V838 Monocerotis: conclusions for the penetration depth of the planet(s). Monthly Notices of the Royal Astronomical Society, 2006, 370, 1573-1580.	1.6	47
58	The gravitational-wave spectrum of a non-axisymmetric torus around a rapidly spinning black hole. New Astronomy, 2006, 11, 619-627.	0.8	6
59	HIGH-ENERGY ASPECTS OF ASTROPHYSICAL JETS. International Journal of Modern Physics A, 2006, 21, 6015-6054.	0.5	36
60	The Difference between the Amati and Ghirlanda Relations. Astrophysical Journal, 2005, 629, L13-L16.	1.6	46
61	Largeâ€Amplitude, Pairâ€creating Oscillations in Pulsar and Black Hole Magnetospheres. Astrophysical Journal, 2005, 631, 456-465.	1.6	83
62	Oscillating pair creation in pulsar magnetospheres. AIP Conference Proceedings, 2005, , .	0.3	3
63	Gravitational radiation from gamma-ray burst-supernovae as observational opportunities for LIGO and VIRGO. Physical Review D, 2004, 69, .	1.6	52
64	Polarization of Gamma-Ray Bursts by Scattering off Relativistically Moving Material: Compton Sailing and High Polarization. Astrophysical Journal, 2004, 613, 1079-1087.	1.6	15
65	An Interpretation of the h Î½ peak - E iso Correlation for Gamma-Ray Bursts. Astrophysical Journal, 2004, 614, L13-L16.	1.6	91
66	On Time Evolution and Causality of Forceâ€free Black Hole Magnetospheres. Astrophysical Journal, 2004, 608, 411-417.	1.6	4
67	Baryon Loading of Gamma-Ray Burst by Neutron Pickup. Astrophysical Journal, 2003, 594, L19-L22.	1.6	51
68	Polarization of Gamma-Ray Bursts via Scattering off a Relativistic Sheath. Astrophysical Journal, 2003, 596, L147-L150.	1.6	40
69	Theory and Astrophysical Consequences of a Magnetized Torus around a Rapidly Rotating Black Hole. Astrophysical Journal, 2003, 584, 937-953.	1.6	71
70	Black-hole galactic nuclei: a high-energy perspective. Classical and Quantum Gravity, 2002, 19, 1317-1319.	1.5	1
71	Gamma-ray bursts: calorimetry on echoes in gravitational waves. Classical and Quantum Gravity, 2002, 19, 1309-1315.	1.5	2
72	Detecting Energy Emissions from a Rotating Black Hole. Science, 2002, 295, 1874-1877.	6.0	17

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73	UHECR production by a compact black hole dynamo: application to Sgr A*. Astroparticle Physics, 2002, 16, 265-270.	1.9	16
74	Neutrino Flux Predictions for Known Galactic Microquasars. Astrophysical Journal, 2002, 575, 378-383.	1.6	95
75	Orphan Gammaâ€Ray Burst Radio Afterglows: Candidates and Constraints on Beaming. Astrophysical Journal, 2002, 576, 923-931.	1.6	129
76	Calorimetry of Gamma-Ray Bursts: Echoes in Gravitational Waves. Astrophysical Journal, 2001, 555, L41-L44.	1.6	8
77	UHECR production and curvature TeV emission in nearby, dormant AGNs. AIP Conference Proceedings, 2001, , .	0.3	1
78	Probing Microquasars with TeV Neutrinos. Physical Review Letters, 2001, 87, 171101.	2.9	83
79	Comment on â€œT[CLC]e[/CLC]V Cerenkov Events as Bose-Einstein Gamma Condensationsâ€• Astrophysical Journal, 2001, 549, L67-L69.	1.6	2
80	A Compact Fireball Model of Gammaâ€Ray Bursts. Astrophysical Journal, 2000, 529, 146-150.	1.6	76
81	Hydrodynamic Collimation of Gamma-Ray-Burst Fireballs. Physical Review Letters, 2000, 85, 236-239.	2.9	45
82	Particle Acceleration and Curvature TeV Emission by Rotating, Supermassive Black Holes. Physical Review Letters, 2000, 85, 912-915.	2.9	89
83	Effect of Orientation on the Variability Pattern of Gamma-Ray Sources. Astrophysics and Space Science, 1999, 268, 433-441.	0.5	0
84	Transient Emission from Dissipative Fronts in Magnetized, Relativistic Outflows. II. Synchrotron Flares. Astrophysical Journal, 1999, 522, 93-100.	1.6	4
85	Shading and Smothering of Gamma-Ray Bursts. Astrophysical Journal, 1999, 521, L117-L120.	1.6	42
86	Model for the Transient Emission from Blazars. Highlights of Astronomy, 1998, 11, 820-823.	0.0	0
87	Transient Emission from Dissipative Fronts in Magnetized, Relativistic Outflows. I. Gammaâ€Ray Flares. Astrophysical Journal, 1998, 507, 145-154.	1.6	23
88	Formation, Evolution, and Structure of Fronts Produced by Unsteady Injection of Highly Magnetized, Relativistic Flows. Astrophysical Journal, 1997, 488, 69-73.	1.6	23
89	On the injection of electrons in oblique shocks. Monthly Notices of the Royal Astronomical Society, 1996, 278, 1018-1024.	1.6	31
90	Pair Cascades in Extragalactic Jets. III. Synchrotron Emission. Astrophysical Journal, 1996, 459, 520.	1.6	7

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91	Can Electromagnetic Instabilities Driven by Temperature Gradients Inhibit Thermal Conduction in Cluster Cooling Flows?. Astrophysical Journal, 1996, 467, 162.	1.6	23
92	Constraints on the Dynamics of Electron-Positron Jets in Active Galactic Nuclei. Astrophysical Journal, 1996, 467, 546.	1.6	12
93	On the Jets Associated with Galactic Superluminal Sources. Astrophysical Journal, 1996, 456, .	1.6	62
94	PAIR CASCADE MODELS OF GAMMA-RAY BLAZARS. Annals of the New York Academy of Sciences, 1995, 759, 534-537.	1.8	0
95	Pair Cascades in Extragalactic Jets. II. The Beamed X-Ray Spectrum. Astrophysical Journal, 1995, 449, 86.	1.6	18
96	Symmetry-breaking effects induced by intense laser fields. Physical Review A, 1994, 49, R661-R664.	1.0	12
97	Electron injection and acceleration at nonlinear shocks: Results of numerical simulations. Astrophysical Journal, 1994, 426, 327.	1.6	19
98	Baryon Purity in Cosmological Gamma-Ray Bursts as a Manifestation of Event Horizons. Astrophysical Journal, 1993, 418, 386.	1.6	107
99	Inhibition of electron thermal conduction by electromagnetic instabilities. Astrophysical Journal, 1992, 387, 212.	1.6	34
100	Electron injection in collisionless shocks. Astrophysical Journal, 1992, 401, 73.	1.6	54
101	GENERALIZED BELINSKYâ€“RUFFINI GEOMETRY. Modern Physics Letters A, 1991, 06, 2189-2195.	0.5	0
102	Can neutron stars ablate their companions?. Astrophysical Journal, 1991, 379, 359.	1.6	15
103	On black widow evolutionary scenarios for binary neutron stars. Astrophysical Journal, 1988, 335, L67.	1.6	19