

# Peter A Becker

## List of Publications by Year in descending order

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55  
papers

1,157  
citations

394421

19  
h-index

395702

33  
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55  
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55  
docs citations

55  
times ranked

870  
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermal and Bulk Comptonization in Accretion-powered X-Ray Pulsars. <i>Astrophysical Journal</i> , 2007, 654, 435-457.	4.5	203
2	Time-dependent Stochastic Particle Acceleration in Astrophysical Plasmas: Exact Solutions Including Momentum-dependent Escape. <i>Astrophysical Journal</i> , 2006, 647, 539-551.	4.5	82
3	A new model for the X-ray continuum of the magnetized accreting pulsars. <i>Astronomy and Astrophysics</i> , 2016, 591, A29.	5.1	48
4	Exact Expressions for the Critical Mach Numbers in the Two-fluid Model of Cosmic-Ray-modified Shocks. <i>Astrophysical Journal</i> , 2001, 546, 429-446.	4.5	47
5	Formation of Relativistic Outflows in Shearing Black Hole Accretion Coronae. <i>Astrophysical Journal</i> , 1999, 523, 203-222.	4.5	44
6	Implications of Gamma-Ray Transparency Constraints in Blazars: Minimum Distances and Gamma-Ray Collimation. <i>Astrophysical Journal</i> , 1995, 453, 83.	4.5	43
7	Spectral Formation in X-Ray Pulsars: Bulk Comptonization in the Accretion Shock. <i>Astrophysical Journal</i> , 2005, 630, 465-488.	4.5	43
8	FOURIER ANALYSIS OF BLAZAR VARIABILITY. <i>Astrophysical Journal</i> , 2014, 791, 21.	4.5	39
9	THE NuSTAR X-RAY SPECTRUM OF HERCULES X-1: A RADIATION-DOMINATED RADIATIVE SHOCK. <i>Astrophysical Journal</i> , 2016, 831, 194.	4.5	38
10	Dynamical Structure of Radiation-dominated Pulsar Accretion Shocks. <i>Astrophysical Journal</i> , 1998, 498, 790-801.	4.5	37
11	Particle Acceleration and the Formation of Relativistic Outflows in Viscous Accretion Disks with Shocks. <i>Astrophysical Journal</i> , 2008, 677, L93-L96.	4.5	34
12	Particle Acceleration and the Production of Relativistic Outflows in Advection-dominated Accretion Disks with Shocks. <i>Astrophysical Journal</i> , 2005, 632, 476-498.	4.5	32
13	DYNAMICAL STRUCTURE OF VISCOUS ACCRETION DISKS WITH SHOCKS. <i>Astrophysical Journal</i> , 2009, 702, 649-659.	4.5	32
14	Spectral Formation in X-Ray Pulsar Accretion Columns. <i>Astrophysical Journal</i> , 2005, 621, L45-L48.	4.5	27
15	Inner Boundary Conditions for Advection-dominated Accretion onto Black Holes. <i>Astrophysical Journal</i> , 2003, 588, 408-424.	4.5	25
16	A New Two-fluid Radiation-hydrodynamical Model for X-Ray Pulsar Accretion Columns. <i>Astrophysical Journal</i> , 2017, 835, 129.	4.5	24
17	Broad Redshifted Line as a Signature of Outflow. <i>Astrophysical Journal</i> , 2003, 598, 411-418.	4.5	23
18	A Self-consistent Model for the Formation of Relativistic Outflows in Advection-dominated Accretion Disks with Shocks. <i>Astrophysical Journal</i> , 2004, 617, L25-L28.	4.5	23

#	ARTICLE	IF	CITATIONS
19	Dynamical and Radiative Properties of X-Ray Pulsar Accretion Columns: Phase-averaged Spectra. <i>Astrophysical Journal</i> , 2017, 835, 130.	4.5	21
20	THE TRANSIENT ACCRETING X-RAY PULSAR XTE J1946+274: STABILITY OF X-RAY PROPERTIES AT LOW FLUX AND UPDATED ORBITAL SOLUTION. <i>Astrophysical Journal</i> , 2015, 815, 44.	4.5	19
21	FOURIER ANALYSIS OF BLAZAR VARIABILITY: KLEINâ€™S NISHINA EFFECTS AND THE JET SCATTERING ENVIRONMENT. <i>Astrophysical Journal</i> , 2015, 809, 85.	4.5	18
22	DIFFUSIVE PARTICLE ACCELERATION IN SHOCKED, VISCOUS ACCRETION DISKS: GREEN'S FUNCTION ENERGY DISTRIBUTION. <i>Astrophysical Journal</i> , 2011, 743, 47.	4.5	16
23	TIME-DEPENDENT ELECTRON ACCELERATION IN BLAZAR TRANSIENTS: X-RAY TIME LAGS AND SPECTRAL FORMATION. <i>Astrophysical Journal</i> , 2016, 824, 108.	4.5	16
24	First-order Fermi acceleration in spherically symmetric flows - Solutions including quadratic losses. <i>Astrophysical Journal</i> , 1992, 397, 88.	4.5	16
25	ELECTRON ACCELERATION IN PULSAR-WIND TERMINATION SHOCKS: AN APPLICATION TO THE CRAB NEBULA GAMMA-RAY FLARES. <i>Astrophysical Journal</i> , 2016, 833, 157.	4.5	14
26	A Steady-state Spectral Model for Electron Acceleration and Cooling in Blazar Jets: Application to 3C 279. <i>Astrophysical Journal</i> , 2018, 853, 6.	4.5	14
27	A self-consistent theory of photohydrodynamical shocks. <i>Astrophysical Journal</i> , 1988, 327, 772.	4.5	14
28	STANDING SHOCK INSTABILITY IN ADVECTION-DOMINATED ACCRETION FLOWS. <i>Astrophysical Journal</i> , 2016, 819, 112.	4.5	13
29	Noise-Storm Continua: Power Estimates for Electron Acceleration. <i>Solar Physics</i> , 2004, 225, 91-103.	2.5	12
30	On the integration of products of Whittaker functions with respect to the second index. <i>Journal of Mathematical Physics</i> , 2004, 45, 761-773.	1.1	12
31	TeV blazar variability: the firehose instability?. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012, 423, 1707-1710.	4.4	12
32	Ion Viscosity Mediated by Tangled Magnetic Fields: an Application to Black Hole Accretion Disks. <i>Astrophysical Journal</i> , 1996, 469, 784.	4.5	12
33	Relativistic Outflows from Advection-dominated Accretion Disks around Black Holes. <i>Astrophysical Journal</i> , 2001, 552, 209-220.	4.5	11
34	Restrictions on the Physical Prescription for the Viscosity in Advection-dominated Accretion Disks. <i>Astrophysical Journal</i> , 2005, 622, 520-530.	4.5	11
35	Particle Acceleration in Advection-dominated Accretion Disks with Shocks: Green's Function Energy Distribution. <i>Astrophysical Journal</i> , 2007, 661, 416-429.	4.5	11
36	Comptonization in supercritical winds. I - Spectral evolution. II - Dynamics and observational diagnostics. <i>Astrophysical Journal</i> , 1986, 310, 534.	4.5	11

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37	Electron Acceleration in Blazars: Application to the 3C 279 Flare on 2013 December 20. <i>Astrophysical Journal</i> , 2019, 884, 116.	4.5	10
38	Infinite integrals of Whittaker and Bessel functions with respect to their indices. <i>Journal of Mathematical Physics</i> , 2009, 50, 123515.	1.1	8
39	Normalization integrals of orthogonal Heun functions. <i>Journal of Mathematical Physics</i> , 1997, 38, 3692-3699.	1.1	7
40	The giant outburst of 4U 0115+634 in 2011 with <i>Suzaku</i> and RXTE. <i>Astronomy and Astrophysics</i> , 2020, 634, A99.	5.1	7
41	Further Constraints on Electron Acceleration in Solar Noise Storms. <i>Solar Physics</i> , 2006, 237, 185-200.	2.5	4
42	A FOURIER-TRANSFORMED BREMSSTRAHLUNG FLASH MODEL FOR THE PRODUCTION OF X-RAY TIME LAGS IN ACCRETING BLACK HOLE SOURCES. <i>Astrophysical Journal Letters</i> , 2014, 785, L34.	8.3	4
43	A two-fluid model for black-hole accretion flows: particle acceleration and disc structure. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 465, 1409-1442.	4.4	4
44	AN INTEGRATED MODEL FOR THE PRODUCTION OF X-RAY TIME LAGS AND QUIESCENT SPECTRA FROM HOMOGENEOUS AND INHOMOGENEOUS BLACK HOLE ACCRETION CORONAE. <i>Astrophysical Journal</i> , 2016, 821, 77.	4.5	3
45	Time-dependent Electron Acceleration in Pulsar Wind Termination Shocks: Application to the 2011 April Crab Nebula Gamma-Ray Flare. <i>Astrophysical Journal</i> , 2018, 853, 16.	4.5	3
46	Relativistic particle transport in hot accretion disks. <i>Astrophysical Journal, Supplement Series</i> , 1994, 90, 949.	7.7	3
47	Time-dependent Electron Acceleration in Pulsar Wind Termination Shocks: Application to the 2007 September Crab Nebula Gamma-Ray Flare. <i>Astrophysical Journal</i> , 2019, 872, 65.	4.5	2
48	A two-fluid model for black-hole accretion flows: Particle acceleration, outflows, and TeV emission. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 491, 4194-4220.	4.4	2
49	A new perturbative technique for solving integro-partial differential equations. <i>Journal of Mathematical Physics</i> , 1999, 40, 5224-5239.	1.1	1
50	Angular momentum transport in quasi-Keplerian accretion disks. <i>Journal of Astrophysics and Astronomy</i> , 2004, 25, 81-91.	1.0	1
51	Exact solution for the hypergeometric Green's function describing spectral formation in x-ray pulsars. <i>Journal of Mathematical Physics</i> , 2005, 46, 053511.	1.1	1
52	Relativistic Particle Transport in Hot Accretion Disks. <i>International Astronomical Union Colloquium</i> , 1994, 142, 949-953.	0.1	0
53	Stochastic particle acceleration in hot accretion disks. <i>AIP Conference Proceedings</i> , 1994, , .	0.4	0
54	Spectral formation in x-ray pulsars and associated identities involving the Laguerre polynomials. <i>Journal of Mathematical Physics</i> , 2008, 49, 033506.	1.1	0

#	ARTICLE	IF	CITATIONS
55	An Analytical Fourier Transformation Model for the Production of Hard and Soft X-Ray Time Lags in Active Galactic Nuclei: Application to 1H 0707-495. <i>Astrophysical Journal</i> , 2022, 932, 113.	4.5	0