

Gianluigi Bodo

List of Publications by Year in descending order

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126
papers

4,480
citations

147566

31
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110170

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134
docs citations

134
times ranked

2594
citing authors

#	ARTICLE	IF	CITATIONS
1	PLUTO: A Numerical Code for Computational Astrophysics. <i>Astrophysical Journal, Supplement Series</i> , 2007, 170, 228-242.	3.0	1,126
2	THE PLUTO CODE FOR ADAPTIVE MESH COMPUTATIONS IN ASTROPHYSICAL FLUID DYNAMICS. <i>Astrophysical Journal, Supplement Series</i> , 2012, 198, 7.	3.0	366
3	MHD simulations of jet acceleration from Keplerian accretion disks. <i>Astronomy and Astrophysics</i> , 2007, 469, 811-828.	2.1	164
4	The Piecewise Parabolic Method for Multidimensional Relativistic Fluid Dynamics. <i>Astrophysical Journal, Supplement Series</i> , 2005, 160, 199-219.	3.0	162
5	An HLLC Riemann solver for relativistic flows – I. Hydrodynamics. <i>Monthly Notices of the Royal Astronomical Society</i> , 2005, 364, 126-136.	1.6	155
6	High-resolution 3D relativistic MHD simulations of jets. <i>Monthly Notices of the Royal Astronomical Society</i> , 2010, 402, 7-12.	1.6	127
7	An HLLC Riemann solver for relativistic flows – II. Magnetohydrodynamics. <i>Monthly Notices of the Royal Astronomical Society</i> , 2006, 368, 1040-1054.	1.6	116
8	Radio Jets and the Formation of Active Galaxies: Accretion Avalanches on the Torus by the Effect of a Large-Scale Magnetic Field. <i>Astrophysical Journal</i> , 1996, 461, 115.	1.6	109
9	High-order conservative finite difference GLM-MHD schemes for cell-centered MHD. <i>Journal of Computational Physics</i> , 2010, 229, 5896-5920.	1.9	104
10	A five-wave Harten-Lax-van Leer Riemann solver for relativistic magnetohydrodynamics. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 393, 1141-1156.	1.6	102
11	Formation of dynamical structures in relativistic jets: the FRI case. <i>Astronomy and Astrophysics</i> , 2008, 488, 795-806.	2.1	89
12	Linear Mechanism of Wave Emergence from Vortices in Smooth Shear Flows. <i>Physical Review Letters</i> , 1997, 79, 3178-3181.	2.9	84
13	Aspect ratio dependence in magnetorotational instability shearing box simulations. <i>Astronomy and Astrophysics</i> , 2008, 487, 1-5.	2.1	77
14	On the origin of X-shaped radio-sources: New insights from the properties of their host galaxies. <i>Astronomy and Astrophysics</i> , 2002, 394, 39-45.	2.1	70
15	On the Nonlinear Evolution of Magnetohydrodynamic Kelvin-Helmholtz Instabilities. <i>Astrophysical Journal</i> , 1996, 456, 708.	1.6	69
16	A Particle Module for the PLUTO Code. II. Hybrid Framework for Modeling Nonthermal Emission from Relativistic Magnetized Flows. <i>Astrophysical Journal</i> , 2018, 865, 144.	1.6	61
17	On the magnetization of jet-launching discs. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 400, 820-834.	1.6	59
18	On the thermal instability of galactic and cluster halos. <i>Astrophysical Journal</i> , 1987, 319, 632.	1.6	57

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19	Heating groups and clusters of galaxies: The role of AGN jets. <i>Astronomy and Astrophysics</i> , 2005, 429, 399-415.	2.1	51
20	Linear stability analysis of magnetized relativistic jets: the non-rotating case. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 434, 3030-3046.	1.6	50
21	Making Faranoff-Riley I radio sources. <i>Astronomy and Astrophysics</i> , 2016, 596, A12.	2.1	49
22	A Particle Module for the PLUTO Code. I. An Implementation of the MHD-PIC Equations. <i>Astrophysical Journal</i> , 2018, 859, 13.	1.6	45
23	Kelvin-Helmholtz instability for relativistic fluids. <i>Physical Review E</i> , 2004, 70, 036304.	0.8	44
24	On the efficiency of particle acceleration by rotating magnetospheres in AGN. <i>Astronomy and Astrophysics</i> , 2007, 470, 395-400.	2.1	43
25	TeV variability in blazars: how fast can it be?. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2009, 393, L16-L20.	1.2	42
26	On the stability of magnetized rotating jets - The axisymmetric case. <i>Astrophysical Journal</i> , 1989, 341, 631.	1.6	41
27	SYMMETRIES, SCALING LAWS, AND CONVERGENCE IN SHEARING-BOX SIMULATIONS OF MAGNETO-ROTATIONAL INSTABILITY DRIVEN TURBULENCE. <i>Astrophysical Journal</i> , 2011, 739, 82.	1.6	40
28	Simulating the dynamics and non-thermal emission of relativistic magnetized jets I. Dynamics. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 499, 681-701.	1.6	37
29	The Origin of Filaments in the Interstellar Medium. <i>Astrophysical Journal</i> , 1996, 470, L49-L52.	1.6	36
30	Spiral density wave generation by vortices in Keplerian flows. <i>Astronomy and Astrophysics</i> , 2005, 437, 9-22.	2.1	35
31	Revisiting linear dynamics of non-axisymmetric perturbations in weakly magnetized accretion discs. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 435, 2552-2567.	1.6	35
32	On the linear theory of Kelvin-Helmholtz instabilities of relativistic magnetohydrodynamic planar flows. <i>Astronomy and Astrophysics</i> , 2008, 490, 493-500.	2.1	34
33	X-ray emission from expanding cocoons. <i>Astronomy and Astrophysics</i> , 2003, 402, 949-962.	2.1	31
34	ON THE CONVERGENCE OF MAGNETOROTATIONAL TURBULENCE IN STRATIFIED ISOTHERMAL SHEARING BOXES. <i>Astrophysical Journal Letters</i> , 2014, 787, L13.	3.0	30
35	On the Stability of Magnetized Rotating Jets: The Nonaxisymmetric Modes. <i>Astrophysical Journal</i> , 1996, 470, 797.	1.6	30
36	Kink-driven magnetic reconnection in relativistic jets: consequences for X-ray polarimetry of BL Lacs. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 501, 2836-2847.	1.6	28

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37	Effects of entropy generation in jet-launching discs. Monthly Notices of the Royal Astronomical Society, 2013, 428, 3151-3163.	1.6	26
38	MAGNETOROTATIONAL TURBULENCE IN STRATIFIED SHEARING BOXES WITH PERFECT GAS EQUATION OF STATE AND FINITE THERMAL DIFFUSIVITY. Astrophysical Journal, 2012, 761, 116.	1.6	25
39	The bulk kinetic power of the jets of GRS 1915+105. Monthly Notices of the Royal Astronomical Society, 1999, 303, L37-L40.	1.6	23
40	MHD simulations of three-dimensional resistive reconnection in a cylindrical plasma column. Monthly Notices of the Royal Astronomical Society, 2016, 462, 2970-2979.	1.6	23
41	3D relativistic MHD numerical simulations of X-shaped radio sources. Astronomy and Astrophysics, 2017, 606, A57.	2.1	22
42	Astrophysical fluid simulations of thermally ideal gases with non-constant adiabatic index: numerical implementation. Astronomy and Astrophysics, 2015, 580, A110.	2.1	20
43	Linear stability analysis of magnetized relativistic rotating jets. Monthly Notices of the Royal Astronomical Society, 2019, 485, 2909-2921.	1.6	20
44	Simulating the dynamics and synchrotron emission from relativistic jets – II. Evolution of non-thermal electrons. Monthly Notices of the Royal Astronomical Society, 2021, 505, 2267-2284.	1.6	20
45	Recollimation shocks and radiative losses in extragalactic relativistic jets. Astronomy and Astrophysics, 2018, 609, A122.	2.1	19
46	Making Faranoff-Riley I radio sources. Astronomy and Astrophysics, 2019, 621, A132.	2.1	19
47	Linear stability analysis of magnetized jets: the rotating case. Monthly Notices of the Royal Astronomical Society, 2016, 462, 3031-3052.	1.6	18
48	Stability and nonlinear adjustment of vortices in Keplerian flows. Astronomy and Astrophysics, 2007, 475, 51-61.	2.1	17
49	Spatial aspect of wave transformations in astrophysical flows. Astronomy and Astrophysics, 2001, 374, 337-347.	2.1	17
50	Time-dependent MHD shocks and line emission: the case of the DG Tau jet. Astronomy and Astrophysics, 2005, 442, 549-554.	2.1	16
51	Linear coupling of modes in two-dimensional radially stratified astrophysical discs. Monthly Notices of the Royal Astronomical Society, 2010, 401, 901-912.	1.6	16
52	Time-dependent MHD shocks and line intensity ratios in the HH30 jet: a focus on cooling function and numerical resolution. Astronomy and Astrophysics, 2009, 507, 581-588.	2.1	15
53	A constrained transport method for the solution of the resistive relativistic MHD equations. Monthly Notices of the Royal Astronomical Society, 2019, 486, 4252-4274.	1.6	15
54	Numerical study of the Kelvin-Helmholtz instability and its effect on synthetic emission from magnetized jets. Astronomy and Astrophysics, 2021, 649, A150.	2.1	14

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55	Relativistic MHD Simulations of Jets with Toroidal Magnetic Fields. <i>Space Science Reviews</i> , 2005, 121, 21-31.	3.7	13
56	The different flavors of extragalactic jets: The role of relativistic flow deceleration. <i>Astronomy and Astrophysics</i> , 2020, 642, A69.	2.1	13
57	The velocity of the emitting plasma of the superluminal galactic source GRS 1915+105. <i>Astrophysical Journal</i> , 1995, 441, L69.	1.6	13
58	Nonlinear Transverse Cascade and Sustainance of MRI Turbulence in Keplerian Disks with an Azimuthal Magnetic Field. <i>Astrophysical Journal</i> , 2017, 845, 70.	1.6	12
59	On the stability of anisotropic astrophysical jets. <i>Monthly Notices of the Royal Astronomical Society</i> , 1988, 234, 539-567.	1.6	11
60	FULLY CONVECTIVE MAGNETOROTATIONAL TURBULENCE IN STRATIFIED SHEARING BOXES. <i>Astrophysical Journal Letters</i> , 2013, 771, L23.	3.0	11
61	Swirling astrophysical flows are efficient amplifiers of Alfvén waves!. <i>Astronomy and Astrophysics</i> , 2003, 399, 421-431.	2.1	11
62	Zero Net Flux MRI Turbulence in Disks: Sustainance Scheme and Magnetic Prandtl Number Dependence. <i>Astrophysical Journal</i> , 2020, 904, 47.	1.6	11
63	Diamagnetic effects in synchrotron sources. <i>Monthly Notices of the Royal Astronomical Society</i> , 1992, 255, 694-700.	1.6	10
64	Acoustic waves in a stratified atmosphere. <i>Astronomy and Astrophysics</i> , 2010, 520, A100.	2.1	10
65	Magnetohydrodynamic thermal instabilities in cool inhomogeneous atmospheres. <i>Astrophysical Journal</i> , 1985, 291, 798.	1.6	10
66	Current-driven magnetohydrodynamic thermal instabilities in sheared fields. <i>Astrophysical Journal</i> , 1987, 313, 432.	1.6	10
67	Acceleration by synchrotron absorption and superluminal sources. <i>Astrophysical Journal</i> , 1990, 362, L1.	1.6	10
68	Kelvin-Helmholtz instabilities in radiating flows. <i>Physics of Fluids A, Fluid Dynamics</i> , 1993, 5, 405-411.	1.6	9
69	The equilibrium structure of thin magnetic flux tubes. I. <i>Astrophysical Journal</i> , 1985, 298, 181.	1.6	9
70	Making Fanaroff-Riley I radio sources. <i>Astronomy and Astrophysics</i> , 2022, 659, A139.	2.1	9
71	Modelling X-shaped radio galaxies: Dynamical and emission signatures from the Back-flow model. <i>Astronomy and Astrophysics</i> , 2022, 662, A5.	2.1	9
72	Amplification of MHD waves in swirling astrophysical flows. <i>Astronomy and Astrophysics</i> , 2003, 408, 401-408.	2.1	8

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73	On the MHD Acceleration of Astrophysical Jets. <i>Astrophysics and Space Science</i> , 2004, 293, 99-106.	0.5	8
74	Entrainment and Deceleration of Relativistic Jets. <i>Astrophysics and Space Science</i> , 2004, 293, 149-155.	0.5	8
75	Astrophysical Jet Simulations: Comparing Different Numerical Methods. <i>Astrophysics and Space Science</i> , 2004, 293, 199-207.	0.5	8
76	Linear and non-linear evolution of current-carrying highly magnetized jets. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 442, 2228-2239.	1.6	8
77	Deceleration of relativistic jets. <i>New Astronomy Reviews</i> , 2003, 47, 557-559.	5.2	7
78	FULLY CONVECTIVE MAGNETO-ROTATIONAL TURBULENCE IN LARGE ASPECT-RATIO SHEARING BOXES. <i>Astrophysical Journal</i> , 2015, 799, 20.	1.6	7
79	Linear wave propagation for resistive relativistic magnetohydrodynamics. <i>Physics of Plasmas</i> , 2018, 25, .	0.7	6
80	Phenomenology and Modelling of Large-Scale Jets. , 1996, , 607-642.		6
81	Radiative instability in synchrotron-emitting plasmas. <i>Astrophysical Journal</i> , 1993, 414, 112.	1.6	6
82	Current-driven kink instabilities in relativistic jets: dissipation properties. <i>Monthly Notices of the Royal Astronomical Society</i> , 2022, 510, 2391-2406.	1.6	6
83	A version of PPM for multidimensional relativistic hydrodynamics. <i>New Astronomy Reviews</i> , 2003, 47, 581-583.	5.2	5
84	On the impact of the numerical method on magnetic reconnection and particle acceleration in the MHD case. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 508, 2771-2783.	1.6	5
85	Shock-Capturing Schemes in Computational MHD. <i>Lecture Notes in Physics</i> , 2008, , 71-101.	0.3	5
86	2D Flux Tube in Radiative Equilibrium. , 1989, , 571-581.		5
87	Acoustic waves in a stratified atmosphere. <i>Astronomy and Astrophysics</i> , 2001, 370, 1088-1091.	2.1	5
88	The equilibrium structure of a thin magnetic flux tube. III - The effects of molecular CO absorption. <i>Astrophysical Journal</i> , 1988, 333, 925.	1.6	5
89	A fluid-particle hybrid framework for the PLUTO code: applications to non-thermal emission in jets. <i>Journal of Physics: Conference Series</i> , 2016, 719, 012023.	0.3	4
90	Magnetic Helicities and Dynamo Action in Magneto-rotational Turbulence. <i>Astrophysical Journal</i> , 2017, 843, 86.	1.6	4

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91	On magnetic helicity generation and transport in a nonlinear dynamo driven by a helical flow. Journal of Plasma Physics, 2020, 86, .	0.7	4
92	On magnetohydrodynamic thermal instabilities in magnetic flux tubes. Astrophysical Journal, 1985, 299, 769.	1.6	4
93	Bending of electromagnetic beams and head-tail radio sources. Monthly Notices of the Royal Astronomical Society, 1981, 196, 481-489.	1.6	3
94	Features of the Wave-Like Distortion in Some RS CVn Binaries. Astrophysics and Space Science Library, 1983, , 395-398.	1.0	3
95	Radiative acceleration by synchrotron sources. Astrophysical Journal, 1992, 401, 87.	1.6	3
96	Numerical simulations of supersonic jets: The cocoon emission. Lecture Notes in Physics, 1996, , 275-283.	0.3	2
97	EVN Observations of GRS 1915+105. Astrophysics and Space Science, 2001, 276, 111-112.	0.5	2
98	GLOBAL PROPERTIES OF FULLY CONVECTIVE ACCRETION DISKS FROM LOCAL SIMULATIONS. Astrophysical Journal, 2015, 808, 141.	1.6	2
99	Particle-Gas Hybrid Schemes in the PLUTO Code. Journal of Physics: Conference Series, 2020, 1623, 012007.	0.3	2
100	The finite-amplitude behavior of the Joule mode under astrophysical conditions. Astrophysical Journal, 1991, 370, 398.	1.6	2
101	Approximate Harten-Lax-van Leer Riemann solvers for relativistic magnetohydrodynamics. , 2012, , 219-226.		2
102	Propagation of microwaves in pulsar magnetospheres. Astrophysics and Space Science, 1981, 80, 261-266.	0.5	1
103	On the cyclo-synchrotron cross-section. Monthly Notices of the Royal Astronomical Society, 1996, 280, 1094-1100.	1.6	1
104	Kelvin-Helmholtz Instabilities and the Emission Knots in Herbig-Haro Jets. Symposium - International Astronomical Union, 1997, 182, 335-342.	0.1	1
105	A kinematical study of R aquarii jet features. Astronomical and Astrophysical Transactions, 1999, 17, 321-331.	0.2	1
106	Numerical Simulations of the Interaction of Jets with the Intracluster Medium. Astrophysics and Space Science, 2004, 293, 247-254.	0.5	1
107	Numerical Simulations of the Interaction of Jets with the Intracluster Medium. , 2004, , 247-254.		1
108	Finite amplitude stability of a plane shear layer. Geophysical and Astrophysical Fluid Dynamics, 1988, 43, 333-347.	0.4	0

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109	Filaments Evolution in Extended Radio Sources. Symposium - International Astronomical Union, 1990, 140, 457-458.	0.1	0
110	A Simple Mhd Model for One-Sided Jets. Symposium - International Astronomical Union, 1994, 159, 360-360.	0.1	0
111	Numerical simulations of supersonic directed flows in astrophysical plasmas. AIP Conference Proceedings, 1995, , .	0.3	0
112	BeppoSAX observations of low power radio galaxies: possible detection of obscured nuclei. Nuclear Physics, Section B, Proceedings Supplements, 1999, 69, 463-466.	0.5	0
113	Vortices and waves in planar and disk flows. AIP Conference Proceedings, 2004, , .	0.3	0
114	High Resolution 3D Relativistic MHD Simulations of Jets. Proceedings of the International Astronomical Union, 2009, 5, 254-255.	0.0	0
115	Entrainment and Deceleration of Relativistic Jets. , 2004, , 149-155.		0
116	MHD SIMULATIONS OF JET ACCELERATION: THE ROLE OF DISK RESISTIVITY. , 2007, , .		0
117	Aerodynamic sound generation by turbulence in shear flows. Springer Proceedings in Physics, 2009, , 867-870.	0.1	0
118	Parameter Study in Disk Jet Systems. Thirty Years of Astronomical Discovery With UKIRT, 2009, , 497-502.	0.3	0
119	Aspect Ratio Dependence in Magnetorotational Instability Shearing Box Simulations. Thirty Years of Astronomical Discovery With UKIRT, 2009, , 77-82.	0.3	0
120	Non-linear Filaments Evolution in Radio Sources. , 1992, , 548-550.		0
121	Radiative Unstable Modes in Astrophysical Jets. , 1992, , 596-597.		0
122	Radiative Acceleration of Blobs in AGN. , 1992, , 502-509.		0
123	Nonlinear Evolution of Radiative Unstable Modes in Extragalactic Jets. Astrophysics and Space Science Library, 1993, , 403-404.	1.0	0
124	Fractal Properties of Extragalactic Jets: Evidence of Turbulence?. , 1996, , 463-464.		0
125	3-D Simulations of Kelvin-Helmholtz Instabilities in Supersonic Jets. , 1996, , 453-454.		0
126	MHD Thermal Instabilities in Cool Inhomogeneous Atmospheres. Astrophysics and Space Science Library, 1983, , 621-623.	1.0	0