

Adil B Hassam

List of Publications by Year in descending order

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121
papers

3,230
citations

136950

32
h-index

155660

55
g-index

121
all docs

121
docs citations

121
times ranked

1402
citing authors

#	ARTICLE	IF	CITATIONS
1	Three-dimensional fluid simulations of the nonlinear drift-resistive ballooning modes in tokamak edge plasmas. <i>Physics of Fluids B</i> , 1993, 5, 3712-3727.	1.7	231
2	Experimental Observation and Characterization of the Magnetorotational Instability. <i>Physical Review Letters</i> , 2004, 93, 114502.	7.8	198
3	Spontaneous poloidal spin-up of tokamaks and the transition to the Hmode. <i>Physical Review Letters</i> , 1991, 66, 309-312.	7.8	169
4	Large-Larmor-radius interchange instability. <i>Physical Review Letters</i> , 1987, 59, 2299-2302.	7.8	137
5	Stabilization of the tearing mode in high-temperature plasma. <i>Physics of Fluids</i> , 1983, 26, 2509.	1.4	118
6	Peeling of convection cells and the generation of sheared flow. <i>Physics of Fluids B</i> , 1992, 4, 488-491.	1.7	108
7	Streamer Formation in Plasma with a Temperature Gradient. <i>Physical Review Letters</i> , 1988, 61, 2205-2208.	7.8	85
8	Theory and Simulation of the Rayleigh-Taylor Instability in the Limit of Large Larmor Radius. <i>Physical Review Letters</i> , 1987, 59, 2971-2974.	7.8	83
9	Time evolution of mass flows in a collisional tokamak. <i>Physics of Fluids</i> , 1978, 21, 2271.	1.4	82
10	Stabilization of ballooning modes with sheared toroidal rotation. <i>Physics of Plasmas</i> , 1995, 2, 3676-3684.	1.9	80
11	Spontaneous poloidal spin-up of tokamak plasmas: Reduced equations, physical mechanism, and sonic regimes. <i>Physics of Fluids B</i> , 1993, 5, 4022-4029.	1.7	77
12	Structuring of the Ampte magnetotail barium releases. <i>Geophysical Research Letters</i> , 1987, 14, 60-63.	4.0	73
13	Nonlinear evolution of drift-tearing modes. <i>Physics of Fluids</i> , 1985, 28, 275-277.	1.4	71
14	Nonlinear stabilization of the Rayleigh-Taylor instability by external velocity shear. <i>Physics of Fluids B</i> , 1992, 4, 485-487.	1.7	65
15	Reconnection of stressed magnetic fields. <i>Astrophysical Journal</i> , 1992, 399, 159.	4.5	63
16	Stability of sub-Alfvénic plasma expansions. <i>Physics of Fluids B</i> , 1990, 2, 1676-1697.	1.7	60
17	Fluid theory of tearing instabilities. <i>Physics of Fluids</i> , 1980, 23, 2493.	1.4	58
18	Local Negative Shear and the Formation of Transport Barriers. <i>Physical Review Letters</i> , 1996, 77, 494-497.	7.8	57

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19	Magnetohydrodynamic equations for systems with large Larmor radius. <i>Physics of Fluids</i> , 1988, 31, 318.	1.4	56
20	A simple MHD model for the formation of multiple dipolarization fronts. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	52
21	Steady supersonically rotating plasmas in the Maryland Centrifugal Experiment. <i>Physics of Plasmas</i> , 2005, 12, 055704.	1.9	49
22	Nonlinear mode coupling theory of the lower-hybrid-drift instability. <i>Physics of Fluids</i> , 1984, 27, 1148.	1.4	47
23	Stability of resistive and ideal ballooning modes in the Texas Experimental Tokamak and DIII-D. <i>Physics of Fluids B</i> , 1992, 4, 1846-1854.	1.7	47
24	An experiment to test centrifugal confinement for fusion. <i>Physics of Plasmas</i> , 2001, 8, 2057-2065.	1.9	47
25	Velocity Shear Stabilization of Centrifugally Confined Plasma. <i>Physical Review Letters</i> , 2001, 87, 235002.	7.8	44
26	Analytical theory of nonlinear drift-tearing mode stability. <i>Physics of Fluids</i> , 1987, 30, 90.	1.4	43
27	Physical mechanism of enhanced stability from negative shear in tokamaks: Implications for edge transport and the L-H transition. <i>Physics of Plasmas</i> , 1996, 3, 2221-2223.	1.9	43
28	Ionospheric turbulence: Interchange instabilities and chaotic fluid behavior. <i>Geophysical Research Letters</i> , 1985, 12, 65-68.	4.0	42
29	Higher-order Chapman-Enskog theory for electrons. <i>Physics of Fluids</i> , 1980, 23, 38.	1.4	39
30	Convective cells and transport in toroidal plasmas. <i>Physics of Fluids</i> , 1979, 22, 2097.	1.4	38
31	Theory of ion temperature gradient instabilities: Thresholds and transport. <i>Physics of Fluids B</i> , 1990, 2, 1822-1832.	1.7	35
32	The rippling instability. <i>Physics of Fluids</i> , 1983, 26, 133.	1.4	33
33	Spectral characteristics of interchange turbulence. <i>Journal of Geophysical Research</i> , 1986, 91, 13513-13522.	3.3	31
34	Theory of drift-acoustic instabilities in the presence of sheared flows. <i>Physics of Fluids B</i> , 1992, 4, 2441-2447.	1.7	31
35	Formation of the shear layer in toroidal edge plasma. <i>Physics of Fluids B</i> , 1993, 5, 1188-1199.	1.7	30
36	Transmission of Alfvén waves through the Earth's bow shock: Theory and observation. <i>Journal of Geophysical Research</i> , 1978, 83, 643-653.	3.3	29

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37	Poloidal spinâ€up of tokamak plasmas from poloidal asymmetry of particle and momentum sources. <i>Physics of Plasmas</i> , 1994, 1, 337-344.	1.9	29
38	Nonlinear Stability of Drift-Tearing Modes. <i>Physical Review Letters</i> , 1985, 54, 1027-1030.	7.8	28
39	Stabilization of Z pinch by velocity shear. <i>Physics of Plasmas</i> , 2000, 7, 4632-4643.	1.9	27
40	Twoâ€dimensional magnetohydrodynamic simulation of a flowing plasma interacting with an externally imposed magnetic field. <i>Physics of Plasmas</i> , 1995, 2, 1976-1981.	1.9	25
41	Radially resolved measurements of plasma rotation and flow-velocity shear in the Maryland Centrifugal Experiment. <i>Physics of Plasmas</i> , 2006, 13, 022503.	1.9	25
42	Kelvinâ€Helmholtz instability in systems with large effective Larmor radius. <i>Physics of Fluids B</i> , 1991, 3, 885-892.	1.7	24
43	Poloidal rotation of tokamak plasmas at super poloidal sonic speeds. <i>Nuclear Fusion</i> , 1996, 36, 707-720.	3.5	24
44	Collisional tearing in field-reversed configurations. <i>Physics of Fluids</i> , 1984, 27, 2877.	1.4	22
45	Nonlocal theory of the Rayleighâ€Taylor instability in the limit of unmagnetized ions. <i>Physics of Fluids B</i> , 1989, 1, 931-941.	1.7	22
46	Loss of static equilibrium, flow generation and the development of turbulence at the edge of tokamaks. <i>Nuclear Fusion</i> , 1992, 32, 1657-1661.	3.5	22
47	Confinement of Plasma along Shaped Open Magnetic Fields from the Centrifugal Force of Supersonic Plasma Rotation. <i>Physical Review Letters</i> , 2010, 105, 085003.	7.8	22
48	Collisional drift waves in a plasma with electron temperature inhomogeneity. <i>Physics of Fluids</i> , 1981, 24, 1262.	1.4	20
49	Two ion fluid numerical investigations of solar wind gas releases. <i>Journal of Geophysical Research</i> , 1994, 99, 19325.	3.3	20
50	Spontaneous and driven perpendicular rotation in tokamaks. <i>Physics of Fluids B</i> , 1993, 5, 2519-2524.	1.7	17
51	A selfâ€consistent model for lowâ€high transitions in tokamaks. <i>Physics of Plasmas</i> , 1996, 3, 3701-3712.	1.9	17
52	Drift-ideal magnetohydrodynamics. <i>Physics of Fluids</i> , 1984, 27, 438.	1.4	16
53	Spectroscopic measurements of plasma rotation and ion and neutral atom temperatures in the Maryland Centrifugal Experiment. <i>Physics of Plasmas</i> , 2004, 11, 3813-3818.	1.9	16
54	Shear Alfvénic Disturbances in the Vicinity of Magnetic Null Xâ€Points. <i>Astrophysical Journal</i> , 1996, 472, 832-839.	4.5	15

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55	Velocity shear stabilization of interchange modes in elongated plasma configurations. Physics of Plasmas, 1999, 6, 3772-3777.	1.9	14
56	Magnetorotational and Parker instabilities in magnetized plasma Dean flow as applied to centrifugally confined plasmas. Physics of Plasmas, 2003, 10, 204-213.	1.9	13
57	Steady State Thermoelectric Field-Reversed Configurations. Physical Review Letters, 1999, 83, 2969-2972.	7.8	12
58	A simulation of the December 1984 solar wind AMPTE release. Geophysical Research Letters, 1991, 18, 135-138.	4.0	11
59	Stability of magnetohydrodynamic Dean Flow as applied to centrifugally confined plasmas. Physics of Plasmas, 1999, 6, 3738-3743.	1.9	11
60	Experimental study on the velocity limits of magnetized rotating plasmas. Physics of Plasmas, 2008, 15, 042504.	1.9	11
61	Centrifugal particle confinement in mirror geometry. Physics of Plasmas, 2018, 25, .	1.9	11
62	Nonlinear evolution of the unmagnetized ion Rayleighâ€“Taylor instability. Physics of Fluids B, 1990, 2, 2001-2006.	1.7	10
63	Ionâ€“temperatureâ€“gradientâ€“driven turbulence and transport in a sheared magnetic field. Physics of Fluids B, 1991, 3, 620-626.	1.7	10
64	Formation of streamers in plasma with an ion temperature gradient. Physics of Fluids B, 1990, 2, 2591-2599.	1.7	9
65	Finite Larmor radius assisted velocity shear stabilization of the interchange instability in magnetized plasmas. Physics of Plasmas, 2005, 12, 064504.	1.9	9
66	Neutral penetration in centrifugally confined plasmas. Physics of Plasmas, 2007, 14, 102508.	1.9	9
67	Sub-AlfvÃ©nic velocity limits in magnetohydrodynamic rotating plasmas. Physics of Plasmas, 2010, 17, .	1.9	9
68	Phase mixing and nonlinearity in geodesic acoustic modes. Physics of Plasmas, 2013, 20, .	1.9	9
69	Lineâ€“tying and the Reduced Equations of Magnetohydrodynamics. Astrophysical Journal, 1999, 511, 976-980.	4.5	9
70	Nonlinear mode coupling and sheared flow in a rotating plasma. Europhysics Letters, 2009, 85, 15001.	2.0	8
71	Tearing modes in solar coronal loops. Astrophysical Journal, 1990, 348, 778.	4.5	8
72	Neoclassical rotation of tokamak plasmas in the plateau regime. Physics of Plasmas, 1995, 2, 3566-3568.	1.9	7

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73	Plasma rotation and the radial electric field during off-axis NBI in the DIII - D tokamak. Plasma Physics and Controlled Fusion, 1996, 38, 1243-1247.	2.1	7
74	Steady-state magnetohydrodynamic plasma flow past conducting sphere. Physics of Plasmas, 1997, 4, 3031-3039.	1.9	7
75	Experimental verification of the dielectric constant of a magnetized rotating plasma. Physics of Plasmas, 2005, 12, 062106.	1.9	7
76	Thermoelectric Rotating Torus for Fusion. Physical Review Letters, 2003, 91, 195002.	7.8	6
77	Magnetohydrodynamic stability of centrifugally confined plasmas. Physics of Plasmas, 2004, 11, 2459-2465.	1.9	5
78	Analysis and modeling of edge fluctuations and transport mechanism in the Maryland Centrifugal Experiment. Physics of Plasmas, 2008, 15, .	1.9	5
79	Observations and analysis of magnetic fluctuations in the Maryland centrifugal experiment. Physics of Plasmas, 2008, 15, 042507.	1.9	5
80	Fusion Energy Science Opportunities in Emerging Concepts. Journal of Fusion Energy, 1999, 18, 13-17.	1.2	4
81	Numerical simulation of the equilibrium and transport of a centrifugally confined plasma. Physics of Plasmas, 2003, 10, 2389-2398.	1.9	4
82	New high rotation mode in magnetized rotating plasmas. Plasma Physics and Controlled Fusion, 2006, 48, 945-954.	2.1	4
83	Production of pico and subpicosecond optoacoustic pulses. Journal of the Acoustical Society of America, 1989, 85, 1560-1568.	1.1	3
84	Cold shock waves in semiconductors and insulators. Journal of Applied Physics, 1989, 65, 2998-3005.	2.5	3
85	Dynamics and dissipation of compressional Alfvén waves near magnetic nulls. Physics of Plasmas, 1995, 2, 4662-4664.	1.9	3
86	Convection in an asymmetrically sourced Z pinch. Physics of Plasmas, 2001, 8, 5151-5157.	1.9	3
87	Resistive magnetohydrodynamic equilibrium and stability of a rotating plasma with particle sources. Physics of Plasmas, 2004, 11, 3738-3747.	1.9	3
88	Observation of momentum confinement time scalings in a rotating plasma. Physics of Plasmas, 2005, 12, 062509.	1.9	3
89	Momentum transfer to rotating magnetized plasma from gun plasma injection. Physics of Plasmas, 2006, 13, 112513.	1.9	3
90	Diamagnetism of rotating plasma. Physics of Plasmas, 2011, 18, 112505.	1.9	3

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109	Formation of Current Sheets in Two-dimensional Geometry. <i>Astrophysical Journal</i> , 1998, 507, 968-973.	4.5	1
110	Quasilinear evolution of the self-filamentation instability. <i>Physics of Fluids</i> , 1986, 29, 4103.	1.4	0
111	Magnetic tearing of plasma discharges due to nonuniform resistivity. <i>Physics of Fluids</i> , 1988, 31, 2068.	1.4	0
112	Band structure of materials suitable for production of pico and subpicosecond optoacoustic pulses. <i>Journal of the Acoustical Society of America</i> , 1991, 90, 1186-1187.	1.1	0
113	START plasma overcomes large-scale instabilities. <i>Physics World</i> , 1993, 6, 22-23.	0.0	0
114	The derivation of equations for fluctuations and transport in flux-tube geometries. <i>Physics of Plasmas</i> , 1998, 5, 1273-1278.	1.9	0
115	Ideal magnetohydrodynamic interchanges in low density plasmas. <i>Physics of Plasmas</i> , 2005, 12, 032107.	1.9	0
116	Weakening of magnetohydrodynamic interchange instabilities by Alfvén waves. <i>Physics of Plasmas</i> , 2008, 15, 024502.	1.9	0
117	Bifurcated equilibria in centrifugally confined plasma. <i>Physics of Plasmas</i> , 2008, 15, 120701.	1.9	0
118	Thermal force drift wave. <i>Physics of Plasmas</i> , 2012, 19, 022106.	1.9	0
119	Boundary induced amplification and nonlinear instability of interchange modes. <i>Physics of Plasmas</i> , 2013, 20, 020704.	1.9	0
120	Residual turbulence from velocity shear stabilized interchange instabilities. <i>Physics of Plasmas</i> , 2013, 20, 012301.	1.9	0
121	Analytic equilibrium of thin force-free current layers in solar magnetic arcades. <i>Astrophysical Journal</i> , 1988, 329, 1002.	4.5	0