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	Centrifugal particle confinement in mirror geometry. Physics of Plasmas, 2018, 25, .	1.9	11
2	Sub-AlfvÃ©nic reduced magnetohydrodynamic equations for tokamaks. Journal of Plasma Physics, 2017, 83, .	2.1	1
3	100 eV electron temperatures in the Maryland centrifugal experiment observed using electron Bernstein emission. Physics of Plasmas, 2014, 21, .	1.9	3
4	Boundary induced amplification and nonlinear instability of interchange modes. Physics of Plasmas, 2013, 20, 020704.	1.9	0
5	Phase mixing and nonlinearity in geodesic acoustic modes. Physics of Plasmas, 2013, 20, .	1.9	9
6	Residual turbulence from velocity shear stabilized interchange instabilities. Physics of Plasmas, 2013, 20, 012301.	1.9	0
7	The excitation of geodesic acoustic mode flows by a resonant magnetic field and by resonant heating. Physics of Plasmas, 2013, 20, 032508.	1.9	1
8	Thermal force drift wave. Physics of Plasmas, 2012, 19, 022106.	1.9	0
9	Diamagnetism of rotating plasma. Physics of Plasmas, 2011, 18, 112505.	1.9	3
10	Nonlinear stability of the ideal magnetohydrodynamic interchange mode at marginal conditions in a transverse magnetic field. Physics of Plasmas, 2011, 18, 122103.	1.9	3
11	Confinement of Plasma along Shaped Open Magnetic Fields from the Centrifugal Force of Supersonic Plasma Rotation. Physical Review Letters, 2010, 105, 085003.	7.8	22
12	Charge and Mass Considerations for Plasma Velocity Measurements in Rotating Plasmas. Journal of Fusion Energy, 2010, 29, 543-547.	1.2	2
13	Sub-AlfvÃ©nic velocity limits in magnetohydrodynamic rotating plasmas. Physics of Plasmas, 2010, 17, .	1.9	9
14	A simple MHD model for the formation of multiple dipolarization fronts. Geophysical Research Letters, 2010, 37, .	4.0	52
15	Dense Plasma Injection Experiment at MCX. Journal of Fusion Energy, 2009, 28, 240-242.	1.2	1
16	Observations and Simulations of Magnetic Fluctuations in MCX. Journal of Fusion Energy, 2009, 28, 243-245.	1.2	1
17	Nonlinear mode coupling and sheared flow in a rotating plasma. Europhysics Letters, 2009, 85, 15001.	2.0	8
18	Weakening of magnetohydrodynamic interchange instabilities by AlfvÃ©n waves. Physics of Plasmas, 2008, 15, 024502.	1.9	0

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19	Analysis and modeling of edge fluctuations and transport mechanism in the Maryland Centrifugal Experiment. Physics of Plasmas, 2008, 15, .	1.9	5
20	Bifurcated equilibria in centrifugally confined plasma. Physics of Plasmas, 2008, 15, 120701.	1.9	0
21	Experimental study on the velocity limits of magnetized rotating plasmas. Physics of Plasmas, 2008, 15, 042504.	1.9	11
22	Observations and analysis of magnetic fluctuations in the Maryland centrifugal experiment. Physics of Plasmas, 2008, 15, 042507.	1.9	5
23	Neutral penetration in centrifugally confined plasmas. Physics of Plasmas, 2007, 14, 102508.	1.9	9
24	New high rotation mode in magnetized rotating plasmas. Plasma Physics and Controlled Fusion, 2006, 48, 945-954.	2.1	4
25	Radially resolved measurements of plasma rotation and flow-velocity shear in the Maryland Centrifugal Experiment. Physics of Plasmas, 2006, 13, 022503.	1.9	25
26	Momentum transfer to rotating magnetized plasma from gun plasma injection. Physics of Plasmas, 2006, 13, 112513.	1.9	3
27	Divergent subcritical convection in magnetized plasma from asymmetric sourcing. Physics of Plasmas, 2005, 12, 062506.	1.9	2
28	Observation of momentum confinement time scalings in a rotating plasma. Physics of Plasmas, 2005, 12, 062509.	1.9	3
29	Finite Larmor radius assisted velocity shear stabilization of the interchange instability in magnetized plasmas. Physics of Plasmas, 2005, 12, 064504.	1.9	9
30	Ideal magnetohydrodynamic interchanges in low density plasmas. Physics of Plasmas, 2005, 12, 032107.	1.9	0
31	Steady supersonically rotating plasmas in the Maryland Centrifugal Experiment. Physics of Plasmas, 2005, 12, 055704.	1.9	49
32	Experimental verification of the dielectric constant of a magnetized rotating plasma. Physics of Plasmas, 2005, 12, 062106.	1.9	7
33	Resistive magnetohydrodynamic equilibrium and stability of a rotating plasma with particle sources. Physics of Plasmas, 2004, 11, 3738-3747.	1.9	3
34	Spectroscopic measurements of plasma rotation and ion and neutral atom temperatures in the Maryland Centrifugal Experiment. Physics of Plasmas, 2004, 11, 3813-3818.	1.9	16
35	Magnetohydrodynamic stability of centrifugally confined plasmas. Physics of Plasmas, 2004, 11, 2459-2465.	1.9	5
36	Experimental Observation and Characterization of the Magnetorotational Instability. Physical Review Letters, 2004, 93, 114502.	7.8	198

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37	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
38	Thermoelectric Rotating Torus for Fusion. Physical Review Letters, 2003, 91, 195002.	7.8	6
39	Numerical simulation of the equilibrium and transport of a centrifugally confined plasma. Physics of Plasmas, 2003, 10, 2389-2398.	1.9	4
40	Convection in an asymmetrically sourced Z pinch. Physics of Plasmas, 2001, 8, 5151-5157.	1.9	3
41	Velocity Shear Stabilization of Centrifugally Confined Plasma. Physical Review Letters, 2001, 87, 235002.	7.8	44
42	An experiment to test centrifugal confinement for fusion. Physics of Plasmas, 2001, 8, 2057-2065.	1.9	47
43	Liquid metal flow encasing a magnetic cavity. Physics of Plasmas, 2000, 7, 1081-1084.	1.9	2
44	Stabilization of Z pinch by velocity shear. Physics of Plasmas, 2000, 7, 4632-4643.	1.9	27
45	Velocity shear stabilization of interchange modes in elongated plasma configurations. Physics of Plasmas, 1999, 6, 3772-3777.	1.9	14
46	Stability of magnetohydrodynamic Dean Flow as applied to centrifugally confined plasmas. Physics of Plasmas, 1999, 6, 3738-3743.	1.9	11
47	Fusion Energy Science Opportunities in Emerging Concepts. Journal of Fusion Energy, 1999, 18, 13-17.	1.2	4
48	Steady State Thermoelectric Field-Reversed Configurations. Physical Review Letters, 1999, 83, 2969-2972.	7.8	12
49	Lineâ€Tying and the Reduced Equations of Magnetohydrodynamics. Astrophysical Journal, 1999, 511, 976-980.	4.5	9
50	The derivation of equations for fluctuations and transport in flux-tube geometries. Physics of Plasmas, 1998, 5, 1273-1278.	1.9	0
51	Formation of Current Sheets in Twoâ€dimensional Geometry. Astrophysical Journal, 1998, 507, 968-973.	4.5	1
52	Steady-state magnetohydrodynamic plasma flow past conducting sphere. Physics of Plasmas, 1997, 4, 3031-3039.	1.9	7
53	A selfâ€consistent model for lowâ€high transitions in tokamaks. Physics of Plasmas, 1996, 3, 3701-3712.	1.9	17
54	Physical mechanism of enhanced stability from negative shear in tokamaks: Implications for edge transport and the Lâ€H transition. Physics of Plasmas, 1996, 3, 2221-2223.	1.9	43

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55	Local Negative Shear and the Formation of Transport Barriers. Physical Review Letters, 1996, 77, 494-497.	7.8	57
56	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
57	Poloidal rotation of tokamak plasmas at super poloidal sonic speeds. Nuclear Fusion, 1996, 36, 707-720.	3.5	24
58	Shear Alfvenic Disturbances in the Vicinity of Magnetic Null Xâ€Points. Astrophysical Journal, 1996, 472, 832-839.	4.5	15
59	Stabilization of ballooning modes with sheared toroidal rotation. Physics of Plasmas, 1995, 2, 3676-3684.	1.9	80
60	Neoclassical rotation of tokamak plasmas in the plateau regime. Physics of Plasmas, 1995, 2, 3566-3568.	1.9	7
61	Dynamics and dissipation of compressional AlfvÃ©n waves near magnetic nulls. Physics of Plasmas, 1995, 2, 4662-4664.	1.9	3
62	Twoâ€dimensional magnetohydrodynamic simulation of a flowing plasma interacting with an externally imposed magnetic field. Physics of Plasmas, 1995, 2, 1976-1981.	1.9	25
63	Disintegration of ion banana orbits in tokamak edge plasmas. Nuclear Fusion, 1995, 35, 605-608.	3.5	1
64	The Damping of Compressional Alfven Waves near Magnetic Cusp Configurations. Astrophysical Journal, 1995, 455, 693.	4.5	2
65	Poloidal spinâ€up of tokamak plasmas from poloidal asymmetry of particle and momentum sources. Physics of Plasmas, 1994, 1, 337-344.	1.9	29
66	Two ion fluid numerical investigations of solar wind gas releases. Journal of Geophysical Research, 1994, 99, 19325.	3.3	20
67	Spontaneous and driven perpendicular rotation in tokamaks. Physics of Fluids B, 1993, 5, 2519-2524.	1.7	17
68	Threeâ€dimensional fluid simulations of the nonlinear driftâ€resistive ballooning modes in tokamak edge plasmas. Physics of Fluids B, 1993, 5, 3712-3727.	1.7	231
69	Spontaneous poloidal spinâ€up of tokamak plasmas: Reduced equations, physical mechanism, and sonic regimes. Physics of Fluids B, 1993, 5, 4022-4029.	1.7	77
70	Formation of the shear layer in toroidal edge plasma. Physics of Fluids B, 1993, 5, 1188-1199.	1.7	30
71	START plasma overcomes large-scale instabilities. Physics World, 1993, 6, 22-23.	0.0	0
72	Reply to â€˜â€˜Comment on â€˜Peeling of convection cells and the generation of sheared flowâ€™ [Phys. Fluids B 4, 488 (1992)]â€™â€™. Physics of Fluids B, 1993, 5, 658-658.	1.7	1

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73	Loss of static equilibrium, flow generation and the development of turbulence at the edge of tokamaks. Nuclear Fusion, 1992, 32, 1657-1661.	3.5	22
74	Theory of driftâ€acoustic instabilities in the presence of sheared flows. Physics of Fluids B, 1992, 4, 2441-2447.	1.7	31
75	Stability of resistive and ideal ballooning modes in the Texas Experimental Tokamak and DIIIâ€D. Physics of Fluids B, 1992, 4, 1846-1854.	1.7	47
76	Peeling of convection cells and the generation of sheared flow. Physics of Fluids B, 1992, 4, 488-491.	1.7	108
77	Nonlinear stabilization of the Rayleighâ€“Taylor instability by external velocity shear. Physics of Fluids B, 1992, 4, 485-487.	1.7	65
78	Reconnection of stressed magnetic fields. Astrophysical Journal, 1992, 399, 159.	4.5	63
79	Band structure of materials suitable for production of pico and subpicosecond optoacoustic pulses. Journal of the Acoustical Society of America, 1991, 90, 1186-1187.	1.1	0
80	A simulation of the December 1984 solar wind AMPTE release. Geophysical Research Letters, 1991, 18, 135-138.	4.0	11
81	Kelvinâ€“Helmholtz instability in systems with large effective Larmor radius. Physics of Fluids B, 1991, 3, 885-892.	1.7	24
82	Transport barrier in ion temperature gradient driven turbulence. Physics of Fluids B, 1991, 3, 1381-1385.	1.7	2
83	Ionâ€temperatureâ€gradientâ€driven turbulence and transport in a sheared magnetic field. Physics of Fluids B, 1991, 3, 620-626.	1.7	10
84	Spontaneous poloidal spin-up of tokamaks and the transition to theHmode. Physical Review Letters, 1991, 66, 309-312.	7.8	169
85	Theory of ion temperature gradient instabilities: Thresholds and transport. Physics of Fluids B, 1990, 2, 1822-1832.	1.7	35
86	Nonlinear evolution of the unmagnetized ion Rayleighâ€“Taylor instability. Physics of Fluids B, 1990, 2, 2001-2006.	1.7	10
87	Formation of streamers in plasma with an ion temperature gradient. Physics of Fluids B, 1990, 2, 2591-2599.	1.7	9
88	Stability of subâ€AlfvÃ©nic plasma expansions. Physics of Fluids B, 1990, 2, 1676-1697.	1.7	60
89	Tearing modes in solar coronal loops. Astrophysical Journal, 1990, 348, 778.	4.5	8
90	Production of pico and subpicosecond optoacoustic pulses. Journal of the Acoustical Society of America, 1989, 85, 1560-1568.	1.1	3

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91	Deuterium molecule in the presence of electronic charge concentrations: Implications for cold fusion. Physical Review A, 1989, 40, 6689-6691.	2.5	1
92	Cold shock waves in semiconductors and insulators. Journal of Applied Physics, 1989, 65, 2998-3005.	2.5	3
93	On the Feasibility of Nonthermal Optoacoustic Spectroscopy of Solids. Applied Spectroscopy, 1989, 43, 345-346.	2.2	1
94	Nonlocal theory of the Rayleighâ€“Taylor instability in the limit of unmagnetized ions. Physics of Fluids B, 1989, 1, 931-941.	1.7	22
95	Huba, Lyon, and Hassam Reply. Physical Review Letters, 1988, 61, 898-898.	7.8	2
96	Magnetic tearing of plasma discharges due to nonuniform resistivity. Physics of Fluids, 1988, 31, 2068.	1.4	0
97	Streamer Formation in Plasma with a Temperature Gradient. Physical Review Letters, 1988, 61, 2205-2208.	7.8	85
98	Magnetohydrodynamic equations for systems with large Larmor radius. Physics of Fluids, 1988, 31, 318.	1.4	56
99	Analytic equilibrium of thin force-free current layers in solar magnetic arcades. Astrophysical Journal, 1988, 329, 1002.	4.5	0
100	Large-Larmor-radius interchange instability. Physical Review Letters, 1987, 59, 2299-2302.	7.8	137
101	Theory and Simulation of the Rayleigh-Taylor Instability in the Limit of Large Larmor Radius. Physical Review Letters, 1987, 59, 2971-2974.	7.8	83
102	Structuring of the Ampte magnetotail barium releases. Geophysical Research Letters, 1987, 14, 60-63.	4.0	73
103	Excited-State Triplet-Triplet Absorption in Î±NPO. Applied Spectroscopy, 1987, 41, 1318-1324.	2.2	2
104	Analytical theory of nonlinear drift-tearing mode stability. Physics of Fluids, 1987, 30, 90.	1.4	43
105	Spectral characteristics of interchange turbulence. Journal of Geophysical Research, 1986, 91, 13513-13522.	3.3	31
106	Quasilinear evolution of the self-filamentation instability. Physics of Fluids, 1986, 29, 4103.	1.4	0
107	Nonlinear Stability of Drift-Tearing Modes. Physical Review Letters, 1985, 54, 1027-1030.	7.8	28
108	Nonlinear evolution of driftâ€tearing modes. Physics of Fluids, 1985, 28, 275-277.	1.4	71

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109	Kinetic and fluid approaches to low-frequency magnetohydrodynamics: A comparison. Physics of Fluids, 1985, 28, 1684.	1.4	1
110	Ionospheric turbulence: Interchange instabilities and chaotic fluid behavior. Geophysical Research Letters, 1985, 12, 65-68.	4.0	42
111	Nonlinear mode coupling theory of the lower-hybrid-drift instability. Physics of Fluids, 1984, 27, 1148.	1.4	47
112	Collisional tearing in field-reversed configurations. Physics of Fluids, 1984, 27, 2877.	1.4	22
113	Drift-ideal magnetohydrodynamics. Physics of Fluids, 1984, 27, 438.	1.4	16
114	The rippling instability. Physics of Fluids, 1983, 26, 133.	1.4	33
115	Stabilization of the tearing mode in high-temperature plasma. Physics of Fluids, 1983, 26, 2509.	1.4	118
116	Collisional drift waves in a plasma with electron temperature inhomogeneity. Physics of Fluids, 1981, 24, 1262.	1.4	20
117	Higher-order Chapmanâ€“Enskog theory for electrons. Physics of Fluids, 1980, 23, 38.	1.4	39
118	Fluid theory of tearing instabilities. Physics of Fluids, 1980, 23, 2493.	1.4	58
119	Convective cells and transport in toroidal plasmas. Physics of Fluids, 1979, 22, 2097.	1.4	38
120	Transmission of AlfvÃ©n waves through the Earth's bow shock: Theory and observation. Journal of Geophysical Research, 1978, 83, 643-653.	3.3	29
121	Time evolution of mass flows in a collisional tokamak. Physics of Fluids, 1978, 21, 2271.	1.4	82