Rohit Chhiber

List of Publications by Year
in descending order

39 papers	994 citations	361413 20 h-index	434195 31 g-index
40 all docs	40 docs citations	40 times ranked	691 citing authors

#	Article	IF	Citations
1	Shear-driven Transition to Isotropically Turbulent Solar Wind Outside the AlfvÃ©n Critical Zone. Astrophysical Journal, 2020, 902, 94.	4.5	83
2	The Steady Global Corona and Solar Wind: A Three-dimensional MHD Simulation with Turbulence Transport and Heating. Astrophysical Journal, 2018, 865, 25.	4.5	69
3	Enhanced Energy Transfer Rate in Solar Wind Turbulence Observed near the Sun from Parker Solar Probe. Astrophysical Journal, Supplement Series, 2020, 246, 48.	7.7	56
4	Higherâ€Order Turbulence Statistics in the Earth's Magnetosheath and the Solar Wind Using Magnetospheric Multiscale Observations. Journal of Geophysical Research: Space Physics, 2018, 123, 9941-9954.	2.4	51
5	Measures of Scale-dependent AlfvÃ©nicity in the First PSP Solar Encounter. Astrophysical Journal, Supplement Series, 2020, 246, 58.	7.7	51
6	Solar Wind Turbulence Studies Using MMS Fast Plasma Investigation Data. Astrophysical Journal, 2018, 866, 81.	4.5	48
7	Contextual Predictions for Parker Solar Probe. II. Turbulence Properties and Taylor Hypothesis. Astrophysical Journal, Supplement Series, 2019, 242, 12.	7.7	45
8	Cosmic-Ray Diffusion Coefficients throughout the Inner Heliosphere from a Global Solar Wind Simulation. Astrophysical Journal, Supplement Series, 2017, 230, 21.	7.7	42
9	Incompressive Energy Transfer in the Earthâ€™s Magnetosheath: Magnetospheric Multiscale Observations. Astrophysical Journal, 2018, 866, 106.	4.5	42
10	Charged Particle Diffusion in Isotropic Random Magnetic Fields. Astrophysical Journal, 2017, 837, 140.	4.5	37
11	Clustering of Intermittent Magnetic and Flow Structures near Parker Solar Probeâ€™s First Perihelionâ€”A Partial-variance-of-increments Analysis. Astrophysical Journal, Supplement Series, 2020, 246, 31.	7.7	37
12	Contextual Predictions for the Parker Solar Probe. I. Critical Surfaces and Regions. Astrophysical Journal, Supplement Series, 2019, 241, 11.	7.7	33
13	Subproton-scale Intermittency in Near-Sun Solar Wind Turbulence Observed by the Parker Solar Probe. Astrophysical Journal Letters, 2021, 911, L7.	8.3	30
14	Sub-AlfvÃ©nic Solar Wind Observed by the Parker Solar Probe: Characterization of Turbulence, Anisotropy, Intermittency, and Switchback. Astrophysical Journal Letters, 2022, 926, L1.	8.3	28
15	Observations of Heating along Intermittent Structures in the Inner Heliosphere from PSP Data. Astrophysical Journal, Supplement Series, 2020, 246, 46.	7.7	26
16	Observations of Energetic-particle Population Enhancements along Intermittent Structures near the Sun from the Parker Solar Probe. Astrophysical Journal, Supplement Series, 2020, 246, 61.	7.7	25
17	Finite Dissipation in Anisotropic Magnetohydrodynamic Turbulence. Physical Review X, 2018, 8, .	8.9	24
18	Theory of Cosmic Ray Transport in the Heliosphere. Space Science Reviews, 2022, 218, .	8.1	24

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19	MMS Observations of Beta-dependent Constraints on Ion Temperature Anisotropy in Earthâ€™s Magnetosheath. Astrophysical Journal, 2018, 866, 25.	4.5	21
20	Magnetic field line random walk and solar energetic particle path lengths. Astronomy and Astrophysics, 2021, 650, A26.	5.1	20
21	Large-scale Structure and Turbulence Transport in the Inner Solar Wind: Comparison of Parker Solar Probeâ€™s First Five Orbits with a Global 3D Reynolds-averaged MHD Model. Astrophysical Journal, 2021, 923, 89.	4.5	20
22	Weakened Magnetization and Onset of Large-scale Turbulence in the Young Solar Windâ€”Comparisons of Remote Sensing Observations with Simulation. Astrophysical Journal Letters, 2018, 856, L39.	8.3	17
23	Kinetic Range Spectral Features of Cross Helicity Using the Magnetospheric Multiscale Spacecraft. Physical Review Letters, 2018, 121, 265101.	7.8	17
24	Intermittency in the Expanding Solar Wind: Observations from Parker Solar Probe (0.16 au), Helios 1 (0.3â€“1 au), and Voyager 1 (1â€“10 au). Astrophysical Journal, Supplement Series, 2022, 259, 23.	7.7	17
25	SOLAR WIND COLLISIONAL AGE FROM A GLOBAL MAGNETOHYDRODYNAMICS SIMULATION. Astrophysical Journal, 2016, 821, 34.	4.5	16
26	Isotropization and Evolution of Energy-containing Eddies in Solar Wind Turbulence: Parker Solar Probe, Helios 1, ACE, WIND, and Voyager 1. Astrophysical Journal Letters, 2022, 932, L11.	8.3	16
27	MagneToRE: Mapping the 3-D Magnetic Structure of the Solar Wind Using a Large Constellation of Nanosatellites. Frontiers in Astronomy and Space Sciences, 2021, 8, .	2.8	13
28	Statistical Survey of Collisionless Dissipation in the Terrestrial Magnetosheath. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA029000.	2.4	12
29	Statistical Analysis of Intermittency and its Association with Proton Heating in the Near-Sun Environment. Astrophysical Journal, 2022, 927, 140.	4.5	12
30	Random Walk and Trapping of Interplanetary Magnetic Field Lines: Global Simulation, Magnetic Connectivity, and Implications for Solar Energetic Particles. Astrophysical Journal, 2021, 908, 174.	4.5	11
31	An extended and fragmented AlfvÃ©n zone in the Young Solar Wind. Monthly Notices of the Royal Astronomical Society, 2022, 513, 159-167.	4.4	11
32	Magnetic Switchback Occurrence Rates in the Inner Heliosphere: Parker Solar Probe and 1 au. Astrophysical Journal Letters, 2022, 929, L10.	8.3	11
33	Scaling and Anisotropy of Solar Wind Turbulence at Kinetic Scales during the MMS Turbulence Campaign. Astrophysical Journal, 2020, 903, 127.	4.5	9
34	von Karman Correlation Similarity of the Turbulent Interplanetary Magnetic Field. Astrophysical Journal Letters, 2021, 919, L27.	8.3	6
35	A detailed examination of anisotropy and timescales in three-dimensional incompressible magnetohydrodynamic turbulence. Physics of Plasmas, 2020, 27, .	1.9	5
36	Domains of Magnetic Pressure Balance in Parker Solar Probe Observations of the Solar Wind. Astrophysical Journal, 2021, 923, 158.	4.5	4

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37	GENERATING SYNTHETIC MAGNETIC FIELD INTERMITTENCY USING A MINIMAL MULTISCALE LAGRANGIAN MAPPING APPROACH. Astrophysical Journal, 2014, 796, 97.	4.5	3
38	von Karman correlation similarity in solar wind magnetohydrodynamic turbulence. Physical Review E, 2022, 105, 045204.	2.1	2
39	The interpretation of data from the Parker Solar Probe mission: shear-driven transition to an isotropically turbulent solar wind. Radiation Effects and Defects in Solids, 2020, 175, 1002-1003.	1.2	0