Reinhard Schlickeiser

List of Publications by Citations

93 papers	2,432 citations	25 h-index	47 g-index
103 ext. papers	2,671 ext. citations	3.4 avg, IF	5.92 L-index

#	Paper	IF	Citations
93	Cosmic Ray Astrophysics. *Astronomy and Astrophysics Library*, **2002**,	0.2	622
92	Cosmic-ray transport and acceleration. I - Derivation of the kinetic equation and application to cosmic rays in static cold media. II - Cosmic rays in moving cold media with application to diffusive shock wave acceleration. *Astrophysical Journal*, **1989**, 336, 243	4.7	297
91	Cosmic magnetization: from spontaneously emitted aperiodic turbulent to ordered equipartition fields. *Physical Review Letters*, **2012**, 109, 261101	7.4	73
90	Covariant kinetic dispersion theory of linear waves in anisotropic plasmas. I. General dispersion relations, bi-Maxwellian distributions and nonrelativistic limits. *Physics of Plasmas*, **2004**, 11, 5532-5546	2.1	67
89	PLASMA EFFECTS ON FAST PAIR BEAMS IN COSMIC VOIDS. *Astrophysical Journal*, **2012**, 758, 102	4.7	65
88	Cosmic-ray particle transport in weakly turbulent plasmas. Part 1. Theory. *Journal of Plasma Physics*, **1993**, 49, 63-77	2.7	60
87	Spontaneous electromagnetic fluctuations in unmagnetized plasmas I: General theory and nonrelativistic limit. *Physics of Plasmas*, **2012**, 19, 022105	2.1	59
86	Thermal fluctuation levels of magnetic and electric fields in unmagnetized plasma: The rigorous relativistic kinetic theory. *Physics of Plasmas*, **2014**, 21, 032109	2.1	46
85	Evolution of the Electron Distribution Function in the Whistler Wave Turbulence of the Solar Wind. *Solar Physics*, **2011**, 269, 421-438	2.6	44
84	Cosmic-Ray Diffusion Approximation with Weak Adiabatic Focusing. *Astrophysical Journal*, **2008**, 686, 292-302	4.7	44
83	Revisiting the Westerlund□2 field with the HESS telescope array. *Astronomy and Astrophysics*, **2011**, 525, A46	5.1	43
82	Cumulative effect of the Weibel-type instabilities in symmetric counterstreaming plasmas with kappa anisotropies. *Physics of Plasmas*, **2008**, 15, 042103	2.1	43
81	PLASMA EFFECTS ON FAST PAIR BEAMS. II. REACTIVE VERSUS KINETIC INSTABILITY OF PARALLEL ELECTROSTATIC WAVES. *Astrophysical Journal*, **2013**, 777, 49	4.7	40
80	Spontaneous electromagnetic fluctuations in unmagnetized plasmas. III. Generalized Kappa distributions. *Physics of Plasmas*, **2012**, 19, 122108	2.1	39
79	Instability of the parallel electromagnetic modes in Kappa distributed plasmas - I. Electron whistler-cyclotron modes. *Monthly Notices of the Royal Astronomical Society*, **2011**, 410, 663-670	4.3	34
78	Particle acceleration in solar flares. *Astrophysical Journal*, **1986**, 305, 909	4.7	32
77	Spontaneous electromagnetic fluctuations in unmagnetized plasmas. II. Relativistic form factors of aperiodic thermal modes. *Physics of Plasmas*, **2013**, 20, 052113	2.1	31

76	A NEW COSMIC RAY TRANSPORT THEORY IN PARTIALLY TURBULENT SPACE PLASMAS: EXTENDING THE QUASILINEAR APPROACH. *Astrophysical Journal*, **2011**, 732, 96	4.7	31
75	Interplanetary transport of solar electrons and protons: Effect of dissipative processes in the magnetic field power spectrum. *Journal of Geophysical Research*, **1993**, 98, 13261-13280		29
74	Analytical solution of the SIR-model for the temporal evolution of epidemics. Part A: time-independent reproduction factor. *Journal of Physics A: Mathematical and Theoretical*, **2020**, 53, 505601	2	29
73	Characterising the VHE diffuse emission in the central 200 parsecs of our Galaxy with H.E.S.S.. *Astronomy and Astrophysics*, **2018**, 612, A9	5.1	29
72	Covid-19 Predictions Using a Gauss Model, Based on Data from April 2 **2020**, 2, 197-212	2.1	28
71	Discovery of VHE emission towards the Carina arm region with the H.E.S.S. telescope array: HESS J1018589. *Astronomy and Astrophysics*, **2012**, 541, A5	5.1	26
70	General properties of small-amplitude fluctuations in magnetized and unmagnetized collision poor plasmas. I. The dielectric tensor. *Physics of Plasmas*, **2010**, 17, 112105	2.1	26
69	Solitons collision and freak waves in a plasma with Cairns-Tsallis particle distributions. *Plasma Physics and Controlled Fusion*, **2015**, 57, 125012	2	25
68	Weak turbulence theory for collisional plasmas. *Physical Review E*, **2016**, 93, 033203	2.4	21
67	Cosmic ray transport in non-uniform magnetic fields: consequences of gradient and curvature drifts *Journal of Plasma Physics*, **2010**, 76, 317-327	2.7	21
66	COSMIC RAYS AND MHD TURBULENCE GENERATION IN INTERSTELLAR GIANT MOLECULAR CLOUDS. *Astrophysical Journal*, **2016**, 824, 89	4.7	19
65	Head-on collision of ion-acoustic solitons in an ultracold neutral plasma. *Astrophysics and Space Science*, **2014**, 350, 175-184	1.6	19
64	Cosmic ray transport in astrophysical plasmas. *Physics of Plasmas*, **2015**, 22, 091502	2.1	18
63	Electromagnetic fluctuations in magnetized plasmas. I. The rigorous relativistic kinetic theory. *Physics of Plasmas*, **2015**, 22, 072108	2.1	18
62	Modified temperature-anisotropy instability thresholds in the solar wind. *Physical Review Letters*, **2011**, 107, 201102	7.4	18
61	EXPLANATION OF THE LOCAL GALACTIC COSMIC RAY ENERGY SPECTRA MEASURED BYVOYAGER 1. I. PROTONS. *Astrophysical Journal*, **2014**, 787, 35	4.7	17
60	Analytical solution of the SIR-model for the temporal evolution of epidemics: part B. Semi-time case. *Journal of Physics A: Mathematical and Theoretical*, **2021**, 54, 175601	2	17
59	Freak waves in a plasma having Cairns particles. *Astrophysics and Space Science*, **2015**, 360, 1	1.6	16

58	On the ordinary mode instability for low beta plasmas. *Physics of Plasmas*, **2014**, 21, 052111	2.1	16
57	Longitudinal oscillations in hot isotropic Maxwellian plasmas. *Physics of Plasmas*, **1994**, 1, 2119-2124	2.1	16
56	Oblique propagation of ion-acoustic solitary waves in a magnetized plasma with electrons following a generalized distribution function. *Physics of Plasmas*, **2019**, 26, 012107	2.1	15
55	Linear Theory of Temperature Anisotropy Instabilities in Magnetized Thermal Pair Plasmas. *The Open Plasma Physics Journal*, **2010**, 3, 1-19		15
54	Modified □distribution of Solar Wind Electrons and Steady-state Langmuir Turbulence. *Astrophysical Journal*, **2018**, 868, 131	4.7	15
53	The reduction of distant blazars□nverse Compton cascade emission by plasma instability induced beam plateauing. *Monthly Notices of the Royal Astronomical Society*, **2015**, 448, 3405-3413	4.3	14
52	A Gaussian Model for the Time Development of the Sars-Cov-2 Corona Pandemic Disease. Predictions for Germany Made on 30 March 2020 **2020**, 2, 164-170	2.1	14
51	FIRST-ORDER DISTRIBUTED FERMI ACCELERATION OF COSMIC RAY HADRONS IN NON-UNIFORM MAGNETIC FIELDS. *Modern Physics Letters A*, **2009**, 24, 1461-1472	1.3	14
50	Instability of the Shukla mode in a dusty plasma containing equilibrium density and magnetic field inhomogeneities. *Physics of Plasmas*, **2004**, 11, 1732-1734	2.1	14
49	STRENGTH OF THE SPONTANEOUSLY EMITTED COLLECTIVE APERIODIC MAGNETIC FIELD FLUCTUATIONS IN THE REIONIZED EARLY INTERGALACTIC MEDIUM. *Astrophysical Journal*, **2013**, 778, 39	4.7	13
48	Spontaneous electromagnetic fluctuations in unmagnetized plasmas. V. Relativistic form factors of weakly damped/amplified thermal modes. *Physics of Plasmas*, **2013**, 20, 082117	2.1	12
47	JUMP CONDITIONS FOR RELATIVISTIC MAGNETOHYDRODYNAMIC SHOCKS IN A GYROTROPIC PLASMA. *Astrophysical Journal*, **2011**, 733, 32	4.7	12
46	THE INFLUENCE OF DISSIPATION RANGE POWER SPECTRA AND PLASMA-WAVE POLARIZATION ON COSMIC-RAY SCATTERING MEAN FREE PATH. *Astrophysical Journal*, **2010**, 719, 1497-1502	4.7	12
45	Quasi-linear theory and the phenomenology of interplanetary solar particle transport. *Astrophysical Journal*, **1993**, 407, L95	4.7	12
44	Analytical Modeling of the Temporal Evolution of Epidemics Outbreaks Accounting for Vaccinations **2021**, 3, 386-426	2.1	11
43	Spontaneous electromagnetic fluctuations in unmagnetized plasmas. IV. Relativistic form factors of aperiodic Lorentzian modes. *Physics of Plasmas*, **2013**, 20, 082116	2.1	10
42	Suprathermal Spontaneous Emissions in □distributed Plasmas. *Astrophysical Journal Letters*, **2018**, 868, L25	7.9	9
41	Quasilinear theory of general electromagnetic fluctuations in unmagnetized plasmas. *Physics of Plasmas*, **2014**, 21, 092102	2.1	8

40	Explicit formulae for the peak time of an epidemic from the SIR model. Which approximant to use?. *Physica D: Nonlinear Phenomena*, **2021**, 425, 132981	3.3	8
39	Electromagnetic fluctuations in magnetized plasmas II: Extension of the theory for parallel wave vectors. *Physics of Plasmas*, **2015**, 22, 102111	2.1	7
38	The instability condition of the aperiodic ordinary mode for new scalings of the counterstreaming parameters. *Physics of Plasmas*, **2015**, 22, 022129	2.1	7
37	THE INFLUENCE OF KLEIN□NISHINA STEPS ON THE SPATIAL DIFFUSION OF GALACTIC COSMIC-RAY ELECTRONS. *Astrophysical Journal*, **2012**, 751, 71	4.7	7
36	Gaussian Doubling Times and Reproduction Factors of the COVID-19 Pandemic Disease. *Frontiers in Physics*, **2020**, 8,	3.9	7
35	Low frequency electromagnetic fluctuations in Kappa magnetized plasmas. *Plasma Physics and Controlled Fusion*, **2018**, 60, 075010	2	7
34	The Original Anisotropy of TeV Cosmic Rays in the Local Interstellar Medium. *Astrophysical Journal*, **2020**, 889, 97	4.7	6
33	Electromagnetic fluctuation spectra of collective oscillations in magnetized Maxwellian plasmas for parallel wave vectors. *Physics of Plasmas*, **2016**, 23, 052106	2.1	6
32	Spontaneous electromagnetic fluctuations in unmagnetized plasmas. VI. Transverse, collective mode for arbitrary distribution functions. *Physics of Plasmas*, **2013**, 20, 104502	2.1	6
31	Ionospheric losses of Venus in the solar wind. *Advances in Space Research*, **2020**, 65, 129-137	2.4	6
30	Electromagnetic ion cyclotron instability stimulated by the suprathermal ions in space plasmas: A quasi-linear approach. *Physics of Plasmas*, **2021**, 28, 022103	2.1	6
29	Obliquely propagating electron-acoustic solitary waves in magnetized plasmas: the role of trapped superthermal electrons. *European Physical Journal D*, **2019**, 73, 1	1.3	5
28	A Gaussian model for the time development of the Sars-Cov-2 corona pandemic disease. Predictions for Germany made on March 30, 2020		5
27	Kinetic theory of small-amplitude fluctuations in astrophysical plasmas. *Physics Reports*, **2018**, 783-785, 1-84	27.7	5
26	Verification of the accuracy of the SIR model in forecasting based on the improved SIR model with a constant ratio of recovery to infection rate by comparing with monitored second wave data. *Royal Society Open Science*, **2021**, 8, 211379	3.3	5
25	The cosmic-ray content of the Orion-Eridanus superbubble. *Astronomy and Astrophysics*, **2020**, 635, A96	5.1	4
24	Primordial Plasma Fuctuations. I. Magnetization of the Early Universe by Dark Aperiodic Fluctuations in the Past Myon and Prior Electron□Positron Annihilation Epoch. *Astrophysical Journal* , **2018**, 857, 29	4.7	4
23	Cosmic Rays in Superbubbles. *Astrophysical Journal*, **2019**, 879, 66	4.7	4

22	Fluctuation-dissipation theorems in magnetized plasmas for arbitrary complex frequencies. *Physics of Plasmas*, **2015**, 22, 102115	2.1	4
21	Relations between interstellar density and magnetic field fluctuations I. Kinetic theory of fluctuations. *Journal of Plasma Physics*, **2002**, 68, 191-202	2.7	4
20	Covid-19 Predictions Using a Gauss Model, Based on Data from April 2		4
19	ON THE BEAM INDUCED QUASI-INSTABILITY TRANSFORMATION OF THE DAMPED APERIODIC MODE IN THE INTERGALACTIC MEDIUM. *Astrophysical Journal*, **2016**, 817, 159	4.7	3
18	Velocity Fluctuations Driven by the Damped, Aperiodic Mode in the Intergalactic Medium. *Astrophysical Journal*, **2017**, 844, 124	4.7	3
17	Kinetics of general electromagnetic fluctuations in unmagnetized plasmas: aperiodic thermal noise. *Plasma Physics and Controlled Fusion*, **2015**, 57, 014013	2	3
16	Nonlinear response of a relativistic plasma to intense fields: Generation of strong quasistatic magnetic fields. *Physics of Plasmas*, **2006**, 13, 102302	2.1	3
15	Covid-19 predictions using a Gauss model, based on data from April 2		3
14	Epidemics Forecast From SIR-Modeling, Verification and Calculated Effects of Lockdown and Lifting of Interventions. *Frontiers in Physics*, **2021**, 8,	3.9	3
13	On the Anisotropy of Galactic Cosmic Rays. *Astrophysical Journal*, **2019**, 879, 29	4.7	2
12	COSMIC-RAY TRANSPORT THEORY IN PARTIALLY TURBULENT SPACE PLASMAS WITH COMPRESSIBLE MAGNETIC TURBULENCE. *Astrophysical Journal*, **2012**, 745, 153	4.7	2
11	AMPLIFICATION OF COLLECTIVE MAGNETIC FLUCTUATIONS IN MAGNETIZED BI-MAXWELLIAN PLASMAS FOR PARALLEL WAVE VECTORS. I. ELECTRON–PROTON PLASMA. *Astrophysical Journal*, **2016**, 829, 41	4.7	2
10	Forecast of Omicron Wave Time Evolution. *Covid*, **2022**, 2, 216-229		2
9	Longitudinal electrostatic waves in isotropic thermal plasmas: Ultrarelativistic pair plasmas. *Physics of Plasmas*, **2019**, 26, 082117	2.1	1
8	Covariant kinetic theory for nonlinear plasma waves interaction. *Journal of Plasma Physics*, **2006**, 72, 711	2.7	1
7	Subluminal electrostatic noise in isotropic space plasmas. General formulas and nonrelativistic thermal limit. *Physics of Plasmas*, **2021**, 28, 052110	2.1	1
6	Reasonable Limiting of 7-Day Incidence per Hundred Thousand and Herd Immunization in Germany and Other Countries. *Covid*, **2021**, 1, 130-136		1
5	Electromagnetic fluctuation spectra of collective oscillations in magnetized Maxwellian equal mass plasmas for low-frequency waves. *Physics of Plasmas*, **2016**, 23, 052117	2.1	1

4	Multi-Hamiltonian structure of the epidemics model accounting for vaccinations and a suitable test for the accuracy of its numerical solvers. *Journal of Physics A: Mathematical and Theoretical*,	2	1
3	SIR-Solution for Slowly Time-Dependent Ratio between Recovery and Infection Rates **2022**, 4, 504-524	2.1	0
2	Response to Comment on Instability of the Shukla mode in a dusty plasma containing equilibrium density and magnetic field inhomogeneities and New resonance and cutoff for low-frequency electromagnetic waves in dusty magnetoplasmas [Phys. Plasmas 11, 4154 (2004)]. *Physics of Plasmas*, **2004**, 11, 4156-4158	2.1	
1	Determining Pitch-Angle Diffusion Coefficients for Electrons in Whistler Turbulence **2022**, 4, 80-103	2.1	