

MATTHEW W. KUNZ

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<http://www.astro.princeton.edu/~kunz>

Academic positions

- 2026– Professor of Astrophysical Sciences, Princeton University
- 2024– Associate Chair, Department of Astrophysical Sciences, Princeton University
- 2024– Director of Graduate Studies, Program in Plasma Physics, Princeton University
- 2021–26 Associate Professor of Astrophysical Sciences, Princeton University
- 2015–21 Assistant Professor of Astrophysical Sciences, Princeton University
- 2014–15 Lyman Spitzer, Jr. Postdoctoral Research Associate, Princeton University
- 2011–14 NASA Einstein Postdoctoral Fellow; Fellowship Sponsor: J. M. Stone
- 2010–11 Junior Research Fellow, University of Oxford, Mansfield College
- 2009–11 Postdoctoral Research Associate, Rudolf Peierls Centre for Theoretical Physics, Oxford;
Advisor: A. A. Schekochihin

Education

- University of Illinois at Urbana-Champaign (UIUC) – MS Physics, 2005; PhD Physics, 2009
PhD Thesis: *The nonisothermal stage of magnetic star formation*; Advisor: T. Ch. Mouschovias
- University of Virginia (UVa) – BA Astronomy-Physics with High Distinction (Minor Math), 2003
Thesis: *Ambipolar diffusion and the magnetorotational instability*; Advisor: S. A. Balbus
- University of Virginia (UVa) – BA Music, 2003; Advisor: W. Ross

Honors and awards

- 2020–25 NSF Faculty Early Career Development Program (CAREER) Award
- 2017–20 Alfred P. Sloan Research Fellowship in Physics
- 2011–14 NASA Einstein Postdoctoral Fellowship
- 2003–09 UIUC Excellent Teachers List (10/10 eligible terms)
- 2005–08 UIUC Outstanding Teachers List (top 10% campus-wide; 4/10 eligible terms)
- 2003–04 Graduate Assistance in Areas of National Need (GAANN) Fellowship (held at UIUC)
- 2003 UVa Department of Music Brander Wyatt Morrison Prize
- 2002–03 UVa Lawn Resident (one of the top honors awarded by UVa)
- 2001–02 David A. Harrison III Undergraduate Research Fellowship (held at UVa)
- 2000–03 UVa Echols Honors Program
- 1999 Eagle Scout, Boy Scouts of America

Recent talks

Invited seminars/colloquia: Flatiron CCA (10/25); Dartmouth (10/25); Columbia Univ. (11/24); Centre de Recherche Astrophysique, Lyon (6/22); Institut de Planétologie et d’Astrophysique, Grenoble (6/22); Rudolf Peierls Centre for Theoretical Physics, Oxford (5/22); Nordita (5/22); Observatoire de la Côte d’Azur, Nice (4/22); Univ. Crete (5/21); UCLA/UCSD/UCI (3/21); J. Plasma Phys. (3/21); UIUC (1/21); PPPL (11/20); Queen Mary, London (10/20); IST, Portugal (1/20) . . .

Invited talks/reviews: MIST2025 Cosmic turbulence and magnetic fields, Corsica (9/25); MIAPbP High-energy plasma phenomena in astrophysics, Garching (9/24); IPELS16 Interrelationship between plasma experiments in the laboratory and in space, Garching (8/24); NSF ECLIPSE meeting, Rochester (4/24); MHD flows in young circumstellar disks, Ringberg (10/23); Cosmic turbulence and magnetic fields, Cargèse (9/23); Astronom, Pasadena (6/23); SolarWind16, Pacific Grove (6/23) . . .

Students and postdoctoral researchers advised

- C. Blume, Princeton physics junior paper, fall 2016
 T. Schrader, Princeton astronomy junior paper, spring 2017
 R. Golant, Princeton astronomy junior paper, spring 2019
 T. McCann, Princeton astronomy junior paper, fall 2021
 M. Walker, Princeton astronomy senior thesis, 2019–20 → *grad, JHU*
 J. Ding, Princeton astro senior thesis, 2023–24 (with C. Hamilton, S. Tremaine) → *grad, Northwestern*
- R. Xu, Princeton astrophysics masters project, 2015–16
 H. Hakobyan, Princeton astrophysics masters project, 2016
 L. Arzamasskiy, Princeton astrophysics masters project, 2016–17
 A. Bailey, Princeton astrophysics masters project, 2017–18
 A. Alt, Princeton plasma physics masters project, 2018–19
 W. Xu, Princeton astrophysics masters project, 2019
 A. Galishnikova, Princeton astrophysics masters project, 2019–20
 H. Winarto, Princeton plasma physics masters project, 2020–21
 S. Majeski, Princeton plasma physics masters project, 2021–22
 T. Foster, Princeton plasma physics masters project, 2022–23
 R. Madan, Princeton plasma physics masters project, 2024–25
 R. Hix, Princeton astrophysics masters project, 2024–25
 M. Goodbred, Princeton astrophysics masters project, 2025–26
 T. Xing, Princeton plasma physics masters project, 2025–26
- D. St-Onge, Princeton plasma physics PhD, 2016–19 → *postdoc, Oxford* → *Vola Dynamics LLC*
 L. Arzamasskiy, Princeton astrophysics PhD, 2017–20 → *postdoc, IAS* → *Citadel LLC*
 W. Xu, Princeton astrophysics PhD, 2019–22 → *postdoc, Flatiron* → *Anthropic PBC*
 E. Yerger, Princeton plasma physics PhD, 2019–23 → *postdoc, UNH*
 C. Bambic, Princeton astrophysics PhD, 2021–24 (with E. Quataert) → *postdoc, Georgia Tech*
 S. Majeski, Princeton plasma physics PhD, 2022–25 → *postdoc, JILA*
 M. Zhang, Princeton plasma physics PhD, 2022–25 → *postdoc, Otago*
 H. Winarto, Princeton plasma physics PhD, 2021–25 → *Canonical/Ubuntu*
 T. Foster, Princeton plasma physics PhD, 2023– (with F. Parra)
 Z. Hemler, Princeton astrophysics PhD, 2024–
 R. Madan, Princeton plasma physics PhD, 2025–
- S. S. Cerri, Princeton postdoctoral research associate, 2017–21 → *CNRS Researcher, Nice*
 V. Zhdankin, NASA Einstein Postdoctoral Fellow, 2018–21 → *Flatiron* → *Asst. Prof., UW–Madison*
 A. Bott, Princeton postdoctoral research associate, 2019–22 → *UKRI FLF, Oxford*
 M. Zhou, Princeton Presidential Postdoctoral Research Fellow, 2022–23 → *Asst. Prof., Dartmouth*
 D. Hosking, Princeton Center for Theoretical Science Fellow, 2022–25 → *Asst. Prof., Edinburgh*
 P. Kempster, Lyman Spitzer, Jr. Postdoctoral Fellow, 2022–25 → *Asst. Prof., IST Lisbon*

Awarded grants

- NSF Physics, *Collaborative Research: Decay and Diffusion of Dynamo-Generated Magnetic Fields in Astrophysical Plasmas* (PIs: MWK, M. Zhou; 2025–28)
- NSF Physics, *Exploration of the Nonequilibrium Statistical Mechanics of Turbulent Collisionless Plasmas* (PIs: V. Zhdankin, MWK; 2024–27)
- NASA Heliophysics Theory, Modeling and Simulations, *Tracing the Flow of Energy that Heats and Accelerates Solar-Wind Streams that Originate in Coronal Holes* (PI: B. Chandran, Co-I: MWK; 2023–26)
- Chandra X-Ray Center subaward, *How do Cosmic Plasmas Work? Insights from the Hottest Brightest Cold Front and Gas Perturbations in A2319* (PI: I. Zhuravleva, Co-PI: MWK; 2022–24)
- NSF Faculty Early Career Development Program (CAREER) Award, *CAREER: Magnetogenesis and Plasma Dynamo Across Cosmic Time* (PI: MWK; 2020–25)
- NSF/DOE Partnership in Basic Plasma Science and Engineering, *Collaborative Research: Multi-scale Dynamics of Kinetic Turbulence in Weakly Collisional, High-Beta Plasmas* (PIs: MWK, E. Quataert; 2018–21)
- Chandra X-Ray Center subaward, *Shock structure, the electron-ion equilibration timescale and the disintegrating cool core in A2146* (PI: H. Russell, Co-I: MWK; 2018–21)
- NASA Astrophysics Theory Program, *Instability, Turbulence, and Enhanced Transport in Collisionless Black-Hole Accretion Flows* (PI: MWK; 2017–21)
- DOE Laboratory Basic Plasma Science Program, *Turbulent Dynamo and Magnetic Self-Organization in Collisionless, Magnetized Plasmas* (PI: MWK; 2017–21)
- Alfred P. Sloan Research Fellowship in Physics (PI: MWK; 2017–20)
- NSF Astronomy Division, *Collaborative Research: Predicting the Observational Signatures of Accreting Black Holes* (PIs: C. Gammie, E. Quataert, J. Stone, MWK; 2017–20)
- NASA Heliophysics Supporting Research, *Kinetic Turbulence, Ion Heating, and Plasma Microphysics in the Solar Wind and Numerical Simulations* (PI: MWK; 2016–20)

Teaching experience

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| Spring 2026 | Professor, AST552: General Plasma Physics II, Princeton |
| Spring 2017–21, '23–'25 | Professor, AST554: Irreversible Processes in Plasmas, Princeton |
| Fall 2016, '18, '20, '25 | Professor, AST521: Intro. to Plasma Astrophysics, Princeton |
| Fall 2018, '20, '22 | Professor, AST303: Deciphering the Universe, Princeton |
| Fall 2016 | Professor, AST541: Seminar in Theoretical Astrophysics, Princeton |
| Fall 2010 – Spr 2011 | College Tutor (Electricity & Magnetism), Mansfield College, Oxford |
| Fall 2010 – Spr 2011 | College Tutor (Electricity & Magnetism), Merton College, Oxford |
| Fall 2007 – Spr 2009 | Teaching Assistant (Graduate Electromagnetism), Dept. of Physics, UIUC |
| Fall 2006 | Teaching Assistant (General Physics I, Lab), Dept. of Physics, UIUC |
| Spr 2006, '07 | Head Teaching Assistant (General Physics II), Dept. of Physics, UIUC |
| Fall 2005, '08 | Teaching Assistant (General Physics II), Dept. of Physics, UIUC |
| Fall 2004 | Teaching Assistant (Graduate Astrophysics), Dept. of Physics, UIUC |
| Fall 2003, Spr 2005 | Teaching Assistant (Mechanics), Dept. of Physics, UIUC |

Lecturing experience (summer/winter schools)

Jun 2019, '21, '23, '26	Lecturer, NSF/GPAP Summer School on Plasma Physics for Astrophysicists
Jun 2025	Lecturer, SCEECs/NSF Summer School on Plasma Physics, UTSA
Jul 2018	Lecturer, Astrosoma Summer School, MIPT, Moscow
Jul 2016	Lecturer, PiTP: Computational Plasma Astrophysics, Inst. for Adv. Study
Jun 2016–2019, '22	Lecturer, SULI Summer School, Princeton Plasma Physics Laboratory
Spring 2013, '17, '19	Lecturer, Les Houches School on Plasma Astrophysics

Service (selected)

- Director of Graduate Studies, Program in Plasma Physics (2024–)
- Participant in graduate admissions for astronomy (2015–) and plasma (2016–) at Princeton
- Examiner for Princeton graduate General Examination in plasma and astronomy (2016–21, 23–)
- Ph.D. Thesis Examiner and/or Reader for 8 astrophysics PhDs and 14 plasma-physics PhDs
- Vice-Chair (2019–20), Chair-Elect (2020–21), Chair (2021–22), and Past-Chair (2022–23) of the Topical Group in Plasma Astrophysics (GPAP) of the APS – Division of Plasma Physics
- Faculty manager for Dept. of Astrophysical Sciences website renovation and maintenance (2015–16), Thunch seminar series (2017–19), outreach (22–24)
- Organizer or co-organizer of: *Plasma Kinetics Working Group Meeting* at WPI, Vienna (2014–19, '22, '23, '25, '26); *Interconnections between the Physics of Plasmas and Self-Gravitating Systems* at KITP (2024); *NSF/GPAP Summer School on Plasma Physics for Astrophysicists* (2019, '21, '23, '26); *Stability, Energetics, and Turbulent Transport in Astrophysical, Fusion, and Solar Plasmas* at PCTS, Princeton (2013)
- Member of organizing committee for: *SCEECs Summer School on Extreme Electrodynamics and Plasma Physics* at UTSA (2025); *NSF ECLIPSE* conference (2022); *Connecting Micro and Macro Scales: Acceleration, Reconnection, and Dissipation in Astrophysical Plasmas* conference at KITP (2019); *Snowcluster 2018: The Physics of Galaxy Clusters* conference (2018); *From Laboratories to Astrophysics: The Expanding University of Plasma Physics* winter school at Les Houches (2017); *HEDLA XI* conference at SLAC (2016)
- Publication referee for: *J. Plasma Physics*, *Nature Comm.*, *Astrophys. J.*, *Proc. Nat. Acad. Sci.*, *Phys. Rev. X*, *Mon. Not. Roy. Astron. Soc.*, *Phys. Plasmas*, *J. Fluid Mech.*, *Astron. Astrophys.*, *J. Comp. Phys*, *Front. Astron. Space Sci.*, *Comp. Phys. Comm.*, *Princeton University Press* ...
- Proposal reviewer for: NASA Astrophysics Theory, Heliophysics Supporting Research; NASA Graduate Student Research; NSF/DOE Partnership; DOE Research in Basic Plasma Science and Engineering; NSF LEAPS-MPS; NSF CAREER; Chandra X-Ray Observatory; Israel Science Foundation; French National Research Agency (ANR) ...

Scientific journal publications

78 refereed articles (incl. 5 *PRL/PRX*, 4 *Nature/PNAS*, 7 *ApJL*; full list [here](#)) + 2 submitted
 >4,600 citations, $i_{10} = 68$, $i_{100} = 13$, h -index = 40 ([Google Scholar](#))
 (* denotes work produced with a student collaborator under my direct supervision or co-supervision)

1. M. F. Zhang*, E. L. Yerger, **M. W. Kunz**, J. Squire, submitted
Inversion of minor-ion heating in imbalanced Alfvénic turbulence
2. S. Majeski*, **M. W. Kunz**, J. Squire, A. A. Schekochihin, submitted
Extended turbulent cascades and two-phase viscous heating in galaxy clusters
3. R. J. Ewart, P. Reichherzer, S. Ren, S. Majeski, F. Mori, M. L. Nastac, A. F. A. Bott, **M. W. Kunz**, A. A. Schekochihin, *Mon. Not. Roy. Astron. Soc.*, 545, staf2108 (2025)
Cosmic-ray transport in inhomogeneous media
4. P. Kempfski, D. B. Fielding, E. Quataert, R. J. Ewart, P. Grete, **M. W. Kunz**, A. A. Philippov, J. M. Stone, *Astrophys. J. Lett.*, 994, 49 (2025)
Self-similar cosmic-ray transport in high-resolution magnetohydrodynamic turbulence
5. R. Chiba, J. Ding*, C. Hamilton, **M. W. Kunz**, S. Tremaine, *Mon. Not. Roy. Astron. Soc.*, 543, 190 (2025)
Galactic echoes
6. A. F. A. Bott, **M. W. Kunz**, E. Quataert, J. Squire, L. Arzamasskiy, *J. Plasma Phys.*, 91, E136 (2025)
Thermodynamics and collisionality in firehose-susceptible high- β plasmas
7. P. Kempfski, D. Li, D. B. Fielding, E. Quataert, E. S. Phinney, **M. W. Kunz**, D. L. Jow, A. A. Philippov, *Astrophys. J. Lett.*, 990, 18 (2025)
A unified model of cosmic ray propagation and radio extreme scattering events from intermittent interstellar structures
8. W. Xu, Y.-F. Jiang, **M. W. Kunz**, J. M. Stone, *Astrophys. J.*, 986, 92 (2025)
Global simulations of gravitational instability in protostellar disks with full radiation transport. I. Stochastic fragmentation with optical-depth-dependent rate and universal fragment mass
9. W. Xu, Y.-F. Jiang, **M. W. Kunz**, J. M. Stone, *Astrophys. J.*, 986, 91 (2025)
Global simulations of gravitational instability in protostellar disks with full radiation transport. II. Locality of spiral and angular-momentum transport, implications for observable substructure
10. P. Reichherzer, A. F. A. Bott, R. J. Ewart, G. Gregori, P. Kempfski, **M. W. Kunz**, A. A. Schekochihin, *Nat. Astron.*, 9, 438 (2025)
Efficient micromirror confinement of sub-TeV cosmic rays in galaxy clusters (Cover Article)
11. M. F. Zhang*, **M. W. Kunz**, J. Squire, K. G. Klein, *Astrophys. J.*, 979, 121 (2025)
Extreme heating of minor ions in imbalanced solar-wind turbulence
12. E. L. Yerger*, **M. W. Kunz**, A. F. A. Bott, A. Spitkovsky, *J. Plasma Phys.*, 91, E20 (2025)
Collisionless conduction in a high-beta plasma: a collision operator for whistler turbulence
13. S. Majeski*, **M. W. Kunz**, J. Squire, *J. Plasma Phys.*, 90, 535900601 (2024)
Self-organization in collisionless, high-beta turbulence

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14. R. J. Ewart, P. Reichherzer, A. F. A. Bott, **M. W. Kunz**, A. A. Schekochihin, *Mon. Not. Roy. Astron. Soc.*, 532, 2098 (2024)
Cosmic-ray confinement in radio bubbles by micromirrors
15. C. J. Bambic*, E. Quataert, **M. W. Kunz**, Y. Zhang, 2024, *Mon. Not. Roy. Astron. Soc.*, 530, 1812 (2024)
Local models of two-temperature accretion disc coronae. II. Ion thermal conduction and the absence of disc evaporation
16. E. A. Tolman, **M. W. Kunz**, J. M. Stone, L. Arzamasskiy, *Astrophys. J.*, 967, 136 (2024)
Tearing-mediated reconnection in magnetohydrodynamic poorly ionized plasmas. I. Onset and linear evolution
17. S. Majeski*, **M. W. Kunz**, *J. Plasma Phys.*, 90, 535900101 (2024)
On hydrodynamic wave interactions in collisionless, high- β plasmas
18. R. A. Chirakkara, A. Seta, C. Federrath, **M. W. Kunz**, *Mon. Not. Roy. Astron. Soc.*, 528, 937 (2024)
Critical magnetic Reynolds number of the turbulent dynamo in collisionless plasmas
19. M. Zhou, V. Zhdankin, **M. W. Kunz**, N. F. Loureiro, D. A. Uzdensky, *Astrophys. J.*, 60, 12 (2024)
Magnetogenesis in a collisionless plasma: from Weibel instability to turbulent dynamo
20. C. J. Bambic*, E. Quataert, **M. W. Kunz**, *Mon. Not. Roy. Astron. Soc.*, 527, 2895 (2024)
Local models of two-temperature accretion disc coronae. I. Structure, outflows, and energetics
21. J. Squire, R. Meyrand, **M. W. Kunz**, *Astrophys. J. Lett.*, 957, L30 (2023)
Electron-ion heating partition in imbalanced turbulence
22. K. G. Klein, H. Spence, . . . , **M. W. Kunz**, . . . , *Space Sci. Rev.*, 219, 74 (2023)
HelioSwarm: a multipoint, multiscale mission to characterize turbulence
23. P. Kempfski, D. Fielding, E. Quataert, A. K. Galishnikova, **M. W. Kunz**, A. A. Philippov, B. Ripperda, *Mon. Not. Roy. Astron. Soc.*, 525, 4985 (2023)
Cosmic ray transport in large-amplitude turbulence with small-scale field reversals
24. J. Squire, **M. W. Kunz**, L. Arzamasskiy, Z. Johnston, E. Quataert, A. A. Schekochihin, *J. Plasma Phys.*, 89, 905890417 (2023)
Pressure anisotropy and viscous heating in weakly collisional plasma turbulence
25. S. Majeski*, **M. W. Kunz**, J. Squire, *J. Plasma Phys.*, 89, 905890303 (2023)
Microphysically modified magnetosonic modes in collisionless, high- β plasmas
26. V. Zhdankin, **M. W. Kunz**, D. A. Uzdensky, *Astrophys. J.*, 944, 24 (2023)
Synchrotron firehose instability
27. L. Arzamasskiy*, **M. W. Kunz**, J. Squire, E. Quataert, A. A. Schekochihin, *Phys. Rev. X*, 13, 021014 (2023)
Kinetic turbulence in collisionless high- β plasmas
28. S. S. Cerri, T. Passot, D. Laveder, P.-L. Sulem, **M. W. Kunz**, *Astrophys. J.*, 939, 36 (2022; 13 pp.)
Turbulent regimes in collisions of 3D Alfvén-wave packets

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29. A. K. Galishnikova*, **M. W. Kunz**, A. A. Schekochihin, *Phys. Rev. X*, 12, 041027 (2022; 16 pp.)
Tearing instability and current-sheet disruption in the turbulent dynamo
30. **M. W. Kunz**, T. W. Jones, I. Zhuravleva, in Section “Galaxy Clusters” (eds E. Pointecouteau, E. Rasia, A. Simionescu) of the *Handbook of X-ray and Gamma-ray Astrophysics* (eds C. Bambi, A. Santangelo) (2022; 42 pp.)
Plasma physics of the intracluster medium
31. A. F. A. Bott, L. Chen, P. Tzeferacos, C. A. J. Palmer, . . . , **M. W. Kunz**, . . . , A. A. Schekochihin, D. Q. Lamb, G. Gregori, *Matter Radiat. at Extremes*, 7, 046901 (2022; 15 pp.)
Insensitivity of a turbulent laser-plasma dynamo to initial conditions
32. H. R. Russell, P. E. J. Nulsen, D. Caprioli, U. Chadayammuri, A. C. Fabian, **M. W. Kunz**, B. R. McNamara, J. S. Sanders, A. Richard-Laferrière, M. Beleznyay, R. E. A. Canning, J. Hlavacek-Larrondo, L. J. King, *Mon. Not. Roy. Astron. Soc.*, 514, 1477 (2022; 17 pp.)
The structure of cluster merger shocks: turbulent width and the electron heating timescale
33. M. Zhou, V. Zhdankin, **M. W. Kunz**, N. F. Loureiro, D. A. Uzdensky, *Proc. Nat. Acad. Sci.*, 119, 2119831119 (2022; 10 pp.)
Spontaneous magnetization of collisionless plasma
34. H. Winarto*, **M. W. Kunz**, *J. Plasma Phys.*, 88, 905880210 (2022; 25 pp.)
Triggering tearing in a forming current sheet with the mirror instability
35. J. Squire, R. Meyrand, **M. W. Kunz**, L. Arzamasskiy, A. A. Schekochihin, E. Quataert, *Nat. Astron.*, 6, 715 (2022; 9 pp.)
High-frequency heating of the solar wind triggered by low-frequency turbulence
36. H. N. Latter, **M. W. Kunz**, *Mon. Not. Roy. Astron. Soc.*, 511, 1182 (2022; 19 pp.)
The vertical shear instability in poorly ionized, magnetized protoplanetary discs
37. A. F. A. Bott, L. Arzamasskiy, **M. W. Kunz**, E. Quataert, J. Squire, *Astrophys. J. Lett.* **922**, L35 (2021; 9 pp.)
Adaptive critical balance and firehose instability in an expanding, turbulent, collisionless plasma
38. W. Xu*, **M. W. Kunz**, *Mon. Not. Roy. Astron. Soc.* **508**, 2142 (2021; 27 pp.)
Formation and evolution of protostellar accretion discs. II. From 3D simulation to a simple semi-analytic model of Class 0/I discs
39. S. S. Cerri, L. Arzamasskiy*, **M. W. Kunz**, *Astrophys. J.* **916**, 120 (2021; 22 pp.)
On stochastic heating and its phase-space signatures in low-beta kinetic turbulence
40. A. Riols, W. Xu*, G. Lesur, **M. W. Kunz**, H. Latter, *Mon. Not. Roy. Astron. Soc.* **506**, 1407 (2021; 20 pp.)
Gravito-turbulence and dynamo in poorly ionized protostellar discs. I. Zero-net-flux case
41. W. Xu*, **M. W. Kunz**, *Mon. Not. Roy. Astron. Soc.* **502**, 4911 (2021; 19 pp.)
Formation and evolution of protostellar accretion discs. I. Angular-momentum budget, gravitational self-regulation, and numerical convergence
42. A. F. A. Bott, P. Tzeferacos, L. Chen, C. A. J. Palmer, A. Rigby, . . . , **M. W. Kunz**, . . . , A. A. Schekochihin, D. Q. Lamb, G. Gregori, *Proc. Nat. Acad. Soc.* **118**, e2015729118 (2021; 12 pp.)
Time-resolved fast turbulent dynamo in a laser plasma

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43. V. Zhdankin, D. A. Uzdensky, **M. W. Kunz**, *Astrophys. J.* **908**, 71 (2021; 6 pp.)
Production and persistence of extreme two-temperature plasmas in radiative relativistic turbulence
44. **M. W. Kunz**, J. Squire, A. A. Schekochihin, E. Quataert, *J. Plasma Phys.* **86**, 905860603 (2020; 26 pp.)
Self-sustaining sound in high- β , collisionless plasma
45. F. Califano, S. S. Cerri, M. Faganello, D. Laveder, **M. W. Kunz**, *Front. Phys.* **8**, 317 (2020; 12 pp.)
Electron-only magnetic reconnection in plasma turbulence
46. D. A. St-Onge*, **M. W. Kunz**, J. Squire, A. A. Schekochihin, *J. Plasma Phys.* **86**, 905860503 (2020; 64 pp.)
Fluctuation dynamo in a weakly collisional plasma
47. P. Kempfski, E. Quataert, J. Squire, **M. W. Kunz**, *Mon. Not. Roy. Astron. Soc.*, 486, 4013 (2019; 17 pp.)
Shearing-box simulations of MRI-driven turbulence in weakly collisional accretion discs
48. L. Arzamasskiy*, **M. W. Kunz**, B. D. G. Chandran, E. Quataert, *Astrophys. J.*, 879, 53 (2019; 13 pp.)
Hybrid-kinetic simulations of ion heating in Alfvénic turbulence
49. J. Squire, A. A. Schekochihin, E. Quataert, **M. W. Kunz**, *J. Plasma Phys.*, 85, 905850114 (2019; 18 pp.)
Magneto-immutable turbulence in weakly collisional plasmas
50. A. Alt*, **M. W. Kunz**, *J. Plasma Phys. Lett.*, 85, 764850101 (2019; 17 pp.)
Onset of magnetic reconnection in a collisionless, high- β plasma (Featured Article)
51. D. A. St-Onge*, **M. W. Kunz**, *Astrophys. J. Lett.*, 863, L25 (2018; 7 pp.)
Fluctuation dynamo in a collisionless, weakly magnetized plasma
52. **M. W. Kunz**, I. G. Abel, K. G. Klein, A. A. Schekochihin, *J. Plasma Phys.*, 84, 715840201 (2018; 61 pp.)
Astrophysical gyrokinetics: turbulence in pressure-anisotropic plasmas at ion scales and beyond
53. S. S. Cerri, **M. W. Kunz**, F. Califano, *Astrophys. J. Lett.*, 856, L13 (2018; 6 pp.)
Dual phase-space cascades in 3D hybrid-Vlasov–Maxwell turbulence
54. J. Squire, E. Quataert, **M. W. Kunz**, *J. Plasma Phys.*, 83, 905830613 (2017; 44 pp.)
Pressure-anisotropy-induced nonlinearities in the kinetic magnetorotational instability
55. J. Squire, **M. W. Kunz**, E. Quataert, A. A. Schekochihin, *Phys. Rev. Lett.*, 119, 5101 (2017; 6 pp.)
Kinetic simulations of the interruption of large-amplitude shear-Alfvén waves in a high- β plasma
56. **M. W. Kunz**, J. M. Stone, E. Quataert, *Phys. Rev. Lett.*, 117, 235101 (2016; 6 pp.)
Magnetorotational turbulence and dynamo in a collisionless plasma (Editors' Suggestion)
57. R. Xu*, **M. W. Kunz**, *J. Plasma Phys.*, 82, 905820507 (2016; 54 pp.)
Linear Vlasov theory of a magnetised, thermally stratified atmosphere (Featured Article)

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58. S. V. Komarov, E. M. Churazov, **M. W. Kunz**, A. A. Schekochihin, *Mon. Not. Roy. Astron. Soc.*, 460, 467 (2016; 10 pp.)
Thermal conduction in a mirror-unstable plasma
59. S. Melville*, A. A. Schekochihin, **M. W. Kunz**, *Mon. Not. Roy. Astron. Soc.*, 459, 2701 (2016; 19 pp.)
Pressure-anisotropy-driven microturbulence and magnetic-field evolution in a shearing, collisionless plasma
60. C. H. K. Chen, L. Matteini, A. A. Schekochihin, M. L. Stevens, C. S. Salem, B. A. Maruca, **M. W. Kunz**, S. D. Bale, *Astrophys. J. Lett.*, 825, 26 (2016; 5 pp.)
Multi-species measurements of the firehose and mirror instability thresholds in the solar wind
61. J. B. Simon, G. Lesur, **M. W. Kunz**, P. J. Armitage, *Mon. Not. Roy. Astron. Soc.*, 454, 1117 (2015; 14 pp.)
Magnetically driven accretion in protoplanetary discs
62. **M. W. Kunz**, A. A. Schekochihin, C. H. K. Chen, I. G. Abel, S. C. Cowley, *J. Plasma Phys.*, 81, 325810501 (2015; 61 pp.)
Inertial-range kinetic turbulence in pressure-anisotropic astrophysical plasmas
63. J. A. ZuHone, **M. W. Kunz**, M. Markevitch, J. M. Stone, V. Biffi, *Astrophys. J.*, 798, 90 (2014; 20 pp.)
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