

---

### Journal publications (refereed)

1. *Decay laws for three-dimensional magnetohydrodynamic turbulence*, D. Biskamp, W.-C. Müller, 1999, *Physical Review Letters* **83**(11), 2195
2. *Scaling properties of three-dimensional magnetohydrodynamic turbulence*, W.-C. Müller, D. Biskamp, 2000, *Physical Review Letters* **84**(3), 475
3. *Scaling properties of three-dimensional isotropic magnetohydrodynamic turbulence*, D. Biskamp, W.-C. Müller, 2000, *Physics of Plasmas* **7**(12), 4889
4. *Large eddy simulation of decaying magnetohydrodynamic turbulence with dynamic subgrid-modeling*, O. Agullo, W.-C. Müller, B. Knaepen, D. Carati, 2001, *Physics of Plasmas* **8**(7), 3502
5. *Dynamic gradient-diffusion subgrid-models for incompressible magnetohydrodynamic turbulence*, W.-C. Müller, D. Carati, 2002, *Physics of Plasmas* **9**(3), 824
6. *Large-eddy simulation of magnetohydrodynamic turbulence*, W.-C. Müller, D. Carati, 2002, *Computer Physics Communications* **147**(1–2), 544
7. *The evolving phenomenological view on magnetohydrodynamic turbulence*, W.-C. Müller, D. Biskamp, 2003, *Lecture Notes in Physics* **614**, 3, edited by E. Falgarone, T. Passot, Springer
8. *Statistical anisotropy of magnetohydrodynamic turbulence*, W.-C. Müller, D. Biskamp, R. Grappin, 2003, *Physical Review E* **67**, 066302
9. *The residual energy in freely decaying magnetohydrodynamic turbulence*, W.-C. Müller, R. Grappin, 2004, *Plasma Physics and Controlled Fusion* **46**, B91
10. *The scaling properties of dissipation in incompressible isotropic three-dimensional MHD turbulence*, J.A. Merrifield, W.-C. Müller, S.C. Chapman, R.O. Dendy, 2005, *Physics of Plasmas* **12**, 022301
11. *Spectral Energy Dynamics in Magnetohydrodynamic Turbulence*, W.-C. Müller, R. Grappin, 2005, *Physical Review Letters* **95**(11), 114502
12. *Nonlinear Cascades and spatial structure of magnetohydrodynamic turbulence*, W.-C. Müller, R. Grappin, in *Relaxation Dynamics in Laboratory and Astrophysical Plasmas*, edited by Y. Sarazin, Ph. Ghendrih, X. Garbet, P. Diamond, volume 1, 187 of *Biennial Reviews of the Theory of Magnetized Plasmas*, World Scientific, Singapore, 2010
13. *Magnetohydrodynamic Turbulence*, W.-C. Müller, 2009, *Lecture Notes in Physics* **756**, 223 edited by W. Hillebrandt, F. Kupka, Springer
14. *Scaling and energy transfer in rotating turbulence*, W.-C. Müller, M. Thiele, 2007, *Europhysics Letters* **77**, 34003

15. *Diffusion and dispersion of passive tracers: Navier-Stokes vs. MHD turbulence*, W.-C. Müller, A. Busse, 2007, *Europhysics Letters* **78**, 14003
16. *Lagrangian statistics of Navier-Stokes and MHD turbulence*, H. Homann, R. Grauer, A. Busse, W.-C. Müller, 2007, *Journal of Plasma Physics* **73**(6), 821
17. *Statistics of passive tracers in three-dimensional magnetohydrodynamic turbulence*, A. Busse, W.-C. Müller, H. Homann, R. Grauer, 2007, *Physics of Plasmas* **14**, 122303
18. *Probability distributions of turbulent energy*, M. Momeni, W.-C. Müller, 2008, *Physical Review E* **77**, 056401
19. *Universal intermittent properties of particle trajectories in highly turbulent flows*, International Collaboration for Turbulence Research, 2008, *Physical Review Letters* **100**(25), 254504
20. *Diffusion and Dispersion in magnetohydrodynamic turbulence: The influence of mean magnetic fields*, A. Busse, W.-C. Müller, 2008, *Astronomische Nachrichten* **329**(7), 714
21. *Nonlinear cascades in two-dimensional turbulent magnetoconvection*, D. Škandera, W.-C. Müller, 2009, *Physical Review Letters* **102**(22), 224501
22. *Structure and decay of rotating homogeneous turbulence*, M. Thiele, W.-C. Müller, 2009, *Journal of Fluid Mechanics* **637**, 425
23. *Scaling and anisotropy in magnetohydrodynamic turbulence*, R. Grappin, W.-C. Müller, 2010, *Physical Review E* **82**, 026406
24. *Lagrangian energy spectrum as a diagnostic for magnetohydrodynamic turbulence*, A. Busse, W.-C. Müller, G. Gogoberidze, 2010, *Physical Review Letters* **105**, 235005
25. *Universality of the small-scale dynamo mechanism*, R. Moll, J. Pietarila Graham, J. Pratt, R. H. Cameron, W.-C. Müller, M. Schüssler, 2011, *Astrophysical Journal* **736**, 36
26. *Comparing numerical methods for isothermal magnetized supersonic turbulence*, A. Kritsuk et al., 2011, *Astrophysical Journal* **737**(1), 13
27. *Nonaxisymmetric anisotropy of solar wind turbulence*, A. Turner, G. Gogoberidze, S.C. Chapman, B. Hnat, W.-C. Müller, 2011, *Physical Review Letters* **107**, 095002
28. *The inverse cascade of magnetic helicity in magnetohydrodynamic turbulence*, W.-C. Müller, S. K. Malapaka, A. Busse, 2012, *Physical Review E* **85**, 015302(R)
29. *Role of helicities for the dynamics of turbulent magnetic fields*, W.-C. Müller, S. K. Malapaka, 2013, *Geophysical and Astrophysical Fluid Dynamics* **107**(1–2), 93

30. *Reduced-magnetohydrodynamic simulations of toroidally and poloidally localized edge localized modes*,  
M. Hölzl, S. Günter, R. P. Wenninger, W.-C. Müller, G. T. A. Huysmans, K. Lackner, I. Krebs and the ASDEX Upgrade Team, 2012, *Journal of Plasma Physics* **19**, 082505
31. *Modelling statistical properties of solar active regions through direct numerical simulations of 3D-MHD turbulence*,  
S. K. Malapaka, W.-C. Müller 2013, *Astrophysical Journal* **774**, 84
32. *Large-scale magnetic structure formation in three-dimensional magnetohydrodynamic turbulence*,  
S. K. Malapaka, A. Busse, W.-C. Müller 2013, *Astrophysical Journal* **778**, 21
33. *Fluctuation dynamo amplified by intermittent shear bursts in convectively driven magnetohydrodynamic turbulence*,  
J. Pratt, W.-C. Müller 2013, *Astronomy & Astrophysics* **557**, A76
34. *Anisotropy of third-order structure functions in MHD turbulence*,  
A. Verdini, R. Grappin, P. Hellinger, S. Landi, W.-C. Müller, 2015, *Astrophysical Journal* **804**, 119
35. *Alfvén-dynamo balance and magnetic excess in magnetohydrodynamic turbulence*,  
R. Grappin, W.-C. Müller, A. Verdini, 2016, *Astronomy & Astrophysics* **589**, A131
36. *Extreme-value statistics from Lagrangian convex hull analysis for homogeneous turbulent Boussinesq convection and MHD convection*,  
J. Pratt, A. Busse, W.-C. Müller, 2017, *New Journal of Physics* **19**, 065006
37. *Higher order finite volume central schemes for multi-dimensional hyperbolic problems*,  
P.-S. Verma, W.-C. Müller, 2017, *Journal of Scientific Computing*  
<https://doi.org/10.1007/s10915-017-0567-8>
38. *Fourth Order Accurate Finite Volume CWENO Scheme For Astrophysical MHD Problems*,  
P.-S. Verma, J.-M. Teissier, O. Henze, W.-C. Müller, 2019, *Monthly Notes of the Royal Astronomical Society* **482**, 416
39. *Lagrangian statistics of heat transfer in homogeneous turbulence driven by Boussinesq convection*,  
J. Pratt, A. Busse, W.-C. Müller, 2020, *Fluids* **5**, 127
40. *Lagrangian statistics for dispersion in magnetohydrodynamic turbulence*,  
J. Pratt, A. Busse, W.-C. Müller, 2020, *Journal of Geophysical Research A: Space Physics* **125**(11), e2020JA028245
41. *Lagrangian statistics for dispersion in magnetohydrodynamic turbulence*,  
J. Pratt, A. Busse, W.-C. Müller, 2020, *Journal of Geophysical Research A: Space Physics* **125**(11),

42. *Inverse transfer of magnetic helicity in direct numerical simulations of compressible isothermal turbulence: scaling laws*,  
J.-M. Tessier, W.-C. Müller, 2021, Journal of Fluid Mechanics, accepted, in course of publication (arXiv:2009.09374),
43. *Higher-order MHD numerics*,  
J.-M. Tessier, W.-C. Müller, 2021, Lecture Notes in Physics, accepted, in course of publication