



Theory and Simulation of Real and Ideal Magnetohydrodynamic Turbulence

By John V. Shebalin

BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 34 pages. Dimensions: 9.7in. x 7.4in. x 0.1in. Incompressible, homogeneous magnetohydrodynamic (MHD) turbulence consists of fluctuating vorticity and magnetic fields, which are represented in terms of their Fourier coefficients. Here, a set of five Fourier spectral transform method numerical simulations of two-dimensional (2-D) MHD turbulence on a $512(\text{sup } 2)$ grid is described. Each simulation is a numerically realized dynamical system consisting of Fourier modes associated with wave vectors k , with integer components, such that $k \leq k(\text{sub max})$. The simulation set consists of one ideal (non-dissipative) case and four real (dissipative) cases. All five runs had equivalent initial conditions. The dimensions of the dynamical systems associated with these cases are the numbers of independent real and imaginary parts of the Fourier modes. The ideal simulation has a dimension of 366104, while each real simulation has a dimension of 411712. The real runs vary in magnetic Prandtl number $P(\text{sub M})$, with $P(\text{sub M})$ is a member of 0.1, 0.25, 1, 4. In the results presented here, all runs have been taken to a simulation time of $t = 25$. Although ideal and real Fourier...



READ ONLINE
[6.79 MB]

Reviews

Extensive information for publication fanatics. We have go through and that i am confident that i am going to likely to read through once more again in the foreseeable future. I am just very happy to inform you that here is the very best publication i have got go through in my individual lifestyle and might be he greatest ebook for ever.

-- **Luciano Von III**

This written ebook is great. it was writtern very perfectly and valuable. I am just very happy to let you know that here is the very best pdf i have study inside my very own life and may be he finest publication for possibly.

-- **Dr. Heather Howell Sr.**

Relevant Kindle Books



[Kindle Fire Tips And Tricks How To Unlock The True Power Inside Your Kindle Fire](#)

CreateSpace Independent Publishing Platform. Paperback. Book Condition: New. This item is printed on demand. Paperback. 52 pages. Dimensions: 9.0in. x 6.0in. x 0.1in.Still finding it getting your way around your Kindle Fire Wish you had the answers to all your frequently asked...



[Viking Ships At Sunrise Magic Tree House, No. 15](#)

Random House Books for Young Readers. Paperback. Book Condition: New. Sal Murdocca (illustrator). Paperback. 96 pages. Dimensions: 7.4in. x 4.9in. x 0.2in.Jack and Annie are ready for their next fantasy adventure in the bestselling middle-grade series the Magic Tree House! Beware of Vikings!warns...



[Memoirs of Robert Cary, Earl of Monmouth](#)

BiblioLife. Paperback. Book Condition: New. This item is printed on demand. Paperback. 142 pages. Dimensions: 8.0in. x 5.0in. x 0.3in.The Author of the Memoirs. The Memoirs here presented to the reader may be said to combine every interest which can attach to...



[Aeschylus](#)

BiblioLife. Paperback. Book Condition: New. This item is printed on demand. Paperback. 260 pages. Dimensions: 8.0in. x 5.0in. x 0.6in.This Translation of Aeschylus, an entirely new one, is designed as an Appendix to my edition of that Poet in the Bibliotheca...



[DK Readers Robin Hood Level 4 Proficient Readers](#)

DK CHILDREN. Paperback. Book Condition: New. Nick Harris (illustrator). Paperback. 48 pages. Dimensions: 8.4in. x 5.7in. x 0.2in.Discover the rollicking exploits of Robin and his merry men as they take from the rich and give to the poor. Join Robin Hood and...



[The Stories Julian Tells A Stepping Stone Book™](#)

Random House Books for Young Readers. Paperback. Book Condition: New. Ann Strugnell (illustrator). Paperback. 80 pages. Dimensions: 7.6in. x 5.0in. x 0.4in.Julian is a quick fibber and a wishful thinker. And he is great at telling stories. He can make people especially his...