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82 Statistical mechanics, structure of matter

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References:

- [1] Alexakis A, Mininni P and Pouquet A 2005 \textit{Phys. Rev. Lett.}95 264503
- [2] Arneodo A, Bacry E, Manneville S and Muzy J F 1998 \textit{Phys. Rev. Lett.}80 708
- [3] Arneodo A, Baudet C, Belin F, Benzi R, Castaing B, Chabaud B, Chavarria R, Ciliberto S, Camussi R and Chilla F 1996 \textit{Europhys. Lett.}34 411
- [4] Arneodo A, Manneville S, Muzy J and Roux S 1999 \textit{Phil. Trans. R. Soc.} A 357 2415
- [5] Baudet C, Michel O and Williams W 1999 \textit{Physica} D 128 1
- [6] Benzi R, Biferale L and Toschi F 1998 \textit{Phys. Rev. Lett.}80 3244
- [7] Benzi R, Biferale L, Ruiz-Chavarria G, Ciliberto S and Toschi F 1999 \textit{Phys. Fluids}11 2215
- [8] Burger K, Treib M, Westermann R, Werner S, Lalescu C, Szalay A, Meneveau C and Eyink G 2012 arXiv:1210.3325
- [9] Celani A, Musacchio S and Vincenzi D 2010 \textit{Phys. Rev. Lett.}104 184506
- [10] Cencini M, Muratore-Ginanneschi P and Vulpiani A 2011 \textit{Phys. Rev. Lett.}107 174502
- [11] Chevillard L, Mazellier N, Poulain C, Gagne Y and Baudet C 2005 \textit{Phys. Rev. Lett.}95 200203
- [12] Cohen L 1995 \textit{Time-Frequency Analysis} (Englewood Cliffs, NJ: Prentice Hall PTR)
- [13] Davidson P A and Pearson B R 2005 \textit{Phys. Rev. Lett.}95 214501
- [14] Eyink G and Aluie H 2009 \textit{Phys. Fluids}21 115107
- [15] Fairhall A, Dhruva B, L'vov V, Procaccia I and Sreenivasan K 1997 \textit{Phys. Rev. Lett.}79 3174
- [16] Falkovich G, Xu H, Pumir A, Bodenschatz E, Biferale L, Boffetta G, Lanotte A S and Toschi F 2012 \textit{Phys. Fluids}24 055102
- [17] Flandrin P 1998 \textit{Time-Frequency/Time-Scale Analysis} (New York: Academic)
- [18] Flandrin P and Gonçalves P 2004 \textit{Int. J. Wavelets, Multires. Info. Proc.}2 477
- [19] Flandrin P, Rilling G and Gonçalves P 2004 \textit{IEEE Signal Process. Lett.}11 112
- [20] Frisch U 1995 \textit{Turbulence: The Legacy of AN Kolmogorov} (Cambridge: Cambridge University Press)
- [21] Huang N E, Shen Z and Long S R 1999 \textit{Annu. Rev. Fluid Mech.}31 417
- [22] Huang N E, Shen Z, Long S R, Wu M C, Shih H H, Zheng Q, Yen N, Tung C C and Liu H H 1998 \textit{Proc. R. Soc.} A 454 903
- [23] Huang Y, Arbitrary-order Hilbert spectral analysis: definition and application to fully developed turbulence and environmental time series 2009 \textit{PhD Thesis} Université des Sciences et Technologies de Lille—Lille 1, France and Shanghai University, China
- [24] Huang Y, Biferale L, Calzavarini E, Sun C and Toschi F 2013 \textit{Phys. Rev.} E 87 041003(R)
- [25] Huang Y, Schmitt F G, Gagne Y, Lu Z and Liu Y 2011 \textit{J. Phys.: Conf. Ser.}318 042003
- [26] Huang Y, Schmitt F G, Hermant J P, Gagne Y, Lu Z and Liu Y 2011 \textit{Phys. Rev.} E 84 016208
- [27] Huang Y, Schmitt F G, Lu Z, Fougairolles P, Gagne Y and Liu Y 2010 \textit{Phys. Rev.} E 82 026319
- [28] Huang Y, Schmitt F G, Lu Z and Liu Y 2008 \textit{Europhys. Lett.}84 40010
- [29] Huang Y, Schmitt F G, Lu Z and Liu Y 2009 \textit{J. Hydrol.}373 103
- [30] Huang Y, Schmitt F G, Zhou Q, Qiu X, Shang X, Lu Z and Liu Y 2011 \textit{Phys. Fluids}23 125101

- [31] Hutchins N and Marusic I 2007 \textit{Phil. Trans. R. Soc. A}365 647
- [32] Kang H, Chester S and Meneveau C 2003 \textit{J. Fluid Mech.}480 129
- [33] Kolmogorov A N 1941 \textit{Dokl. Akad. Nauk SSSR}30 301
- [34] Lalescu C C, Meneveau C and Eyink G L 2013 \textit{Phys. Rev. Lett.}110 084102
- [35] L'vov V and Procaccia I 1996 \textit{Phys. Rev. Lett.}76 2898
- [36] Marusic I, Mathis R and Hutchins N 2010 \textit{Science}329 193
- [37] Mathis R, Hutchins N and Marusic I 2009 \textit{J. Fluid Mech.}628 311
- [38] Monin A S and Yaglom A M 1971 \textit{Statistical Fluid Mechanics vd II} (Cambridge, MA: MIT Press)
- [39] Mouri H, Hori A and Takaoka M 2009 \textit{Phys. Fluids}21 065107
- [40] Mouri H, Kubotani H, Fujitani T, Niino H and Takaoka M 1999 \textit{J. Fluid Mech.}389 229
- [41] Pando J, Valls-Gabaud D and Fang L 1998 \textit{Phys. Rev. Lett.}81 4568
- [42] Percival D and Walden A 1993 \textit{Spectral Analysis for Physical Applications: Multitaper and Conventional Univariate Techniques} (Cambridge: Cambridge University Press)
- [43] Pope S B 2000 \textit{Turbulent Flows} (Cambridge: Cambridge University Press)
- [44] Poulain C, Mazellier N, Chevillard L, Gagne Y and Baudet C 2006 \textit{Eur. Phys. J.} B 53 219
- [45] Tan H-S, Huang Y and Meng J-P 2014 \textit{Phys. Fluids}26 015106
- [46] Rilling G, Flandrin P and Gonçalvès P 2003 IEEE-EURASIP Workshop on Nonlinear Signal and Image Processing (Grado, Italy)
- [47] Tsinober A 2009 \textit{An Informal Conceptual Introduction to Turbulence} (Berlin: Springer Verlag)
- [48] Wood A and Chan G 1994 \textit{J. Comput. Graph. Stat.}3 409
- [49] Wu Z-H and Huang N-E 2004 \textit{Proc. R. Soc.} A 460 1597

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