

LIST OF PUBLICATIONS (Deepak Dhar)

A. Self- Organized Criticality: Sandpile models

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2. Self-organized critical state of sandpile automaton models, Phys. Rev. Lett. **64** (1990) 1613.
3. Abelian sandpile model on the Bethe lattice, (+ S. N. Majumdar), J. Phys. **A23** (1990) 4333.
4. A simple soluble model of self-organized criticality in *Current Trends in Condensed Matter, Particle Physics and Cosmology*, Eds. J. Pati, Q. Shafi, S. Wadia and Yu Lu, (World Scientific, Singapore, 1990) p117.
5. Height correlations in the abelian sandpile model,(S. N. Majumdar +), J. Phys. **A24** (1991) L357.
6. The abelian sandpile model of self -organized criticality, in *Computer -aided studies of statistical physics*, AIP conference proceedings **248**, (Taipei, 1991), Ed. C. K. Hu (AIP, New York, 1992).
7. Equivalence of the abelian sandpile model and the $q \rightarrow 0$ limit of the Potts model, (S. N. Majumdar +) Physica **A185** (1992) 129.
8. Sandpiles and self-organized criticality, Physica **A186** (1992) 82.
9. Inverse avalanches in the abelian sandpile model, (+ S. S. Manna) Phys. Rev. **E49** (1994) 2684.
10. Breakdown of simple scaling in Abelian sandpile models in one dimension , (A. A. Ali +), Phys. Rev. **E51** (1995) R2705. [cond-mat 9412085]
11. Algebraic aspects of Abelian sandpile models, (+ P. Ruelle, S. Sen, D. N. Verma) J. Phys. **A28** (1995) 805. [cond-mat 9408022]

12. Structure of avalanches and breakdown of simple scaling in Abelian sandpile model in one dimension, (A. A. Ali +), Phys. Rev. **E52** (1995) 4804.
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15. The abelian sandpile and related models, Physica **A 263** (1999) 4. [cond-mat 9808047]
16. Some results and a conjecture for Manna's stochastic sandpile model, Physica **A 270** (1999) 69. [cond-mat 9902137]
17. Studying Self-Organized Criticality with Exactly Solved Models. [cond-mat 9909009]
18. An Introduction to Self-organized Criticality, in *Condensed Matter Physics*, Eds. B. K. Agrawal and H. Prakash, Proceedings of the K. S. Krishnan Symposium, Univ. of Allahabad, Dec. 1998, (Narosa, New Delhi, 1999).
19. Continuously varying critical exponents in a sandpile model with dissipation near surface, (S. Lubeck +), J. Stat. Phys., **102** (2001) 1. [cond-mat 0006490]
20. Generic sandpiles have directed percolation exponents, (P. K. Mohanty +), Phys. Rev. Lett. **89** (2002) 5. [cond-mat 0202345]
21. Theoretical studies of sandpile models of self-organized criticality, TWAS physics 2002 award lecture given at Third world Academy of Sciences 20th Annual meeting, Beijing, Oct. 16-19,2003.
22. Probability distribution of residence-times of grains in sandpile models, (+ P. Pradhan), J. Stat. Mech: Theory and Exper., (2004) P05002. [cond-mat/ 0404019]
23. Theoretical studies of self-organized criticality, Physica **A 369** (2006) 29.

24. Critical behavior of sandpile models with sticky grains, (P.K. Mohanty +), *Physica A* **384** (2007) 34. [cond-mat/0704.2142]
25. Steady state of stochastic sandpile models, (T. Sadhu +), *J. Stat. Phys.*, **134** (2009) 427.
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27. Directed Abelian sandpile with multiple downward neighbors, (+ G. Pruessner, P. Expert, K. Christensen and N. Zachariou), *Phys. Rev. E* **93** (2016) 042107. [DOI: 10.1103/PhysRevE.93.042107] [arxiv:1511:06088]

B. Other Models of Self-organized Criticality

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2. Eulerian walkers as a model of self-organized criticality, (V. B. Priezhev, A. Dhar, S. Krishnamurthy +), *Phys. Rev. Lett.*, **77** (1996) 5079. [cond-mat 9611019]
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4. Distribution of sizes of erased loops of loop-erased random walks in two and three dimensions (H. Agrawal +), *Phys. Rev. E* **63** (2001) 056115. [cond-mat 0012102]
5. Probability distribution of sizes of largest erased loops in loop-erased random walks (H. Agrawal +), *Phys. Rev. E* **65** (2002) 031108. [cond-mat 0107246]
6. Steady State and Relaxation Spectrum of the Oslo Rice-pile model, *Physica A* **340** (2004) 535.
7. Probability distribution of residence times of grains in models of ricepiles, (P. Pradhan +), *Phys. Rev. E* **73**, 021303(2006). [cond-mat/0511237]

8. Sampling rare fluctuations of height in the Oslo ricepile model, (P. Pradhan+), J. Phys. A: Math. Theo. **40** (2007) 2639. [cond-mat 0608144]
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11. Fragmentation of a sheet by propagating, branching and merging cracks, J. Phys. A **48** (2015) 175001. [arXiv:1502:00767]

C. Pattern formation in growing sandpiles

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2. Asymptotic shape of region visited by an Eulerian walker, (R. Kapri +), Phys. Rev. E **80** (2009) 051118. [arXiv:0906.5506]
3. Pattern formation in growing sandpiles with multiple sources or sinks, (T. Sadhu +), J. Stat. Phys. **138**:815 (2010). [arXiv:0909.3192]
4. Effect of noise in patterns formed by growing sandpiles, (T. Sadhu +DD), J. Stat. Mech, (2011) P03001. [arXiv:1012.4809v1 (cond-mat.stat-mech)]
5. Pattern formation in fast-growing sandpiles, (T. Sadhu +), Phys. Rev. E. **85**, 021107 (2012). [arXiv:1109.2908v1 (cond-mat.stat-mech)].
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D. Real Space Renormalization Group studies on fractals

1. Lattices of effective nonintegral dimensionality, J. Math. Phys. **18** (1977) 577.
2. Self-avoiding random walks: some exactly soluble cases, J. Math. Phys. **19** (1978) 5.
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11. Branched polymers on the Given-Mandelbrot family of fractals, Phys Rev. **E 71**, 031801 (2005).
12. Linear and branched polymers on fractals, (+ Y. Singh), in *Statistics of Polymers in Random Media*, Ed. B. K. Chakrabarti, (World Scientific, Singapore, 2005), p149. [cond-mat/0508330]
13. Quenched averages for self avoiding walks and polygons on deterministic fractals, (Sumedha +), J. Stat. Phys., **125** (2006) 55. [cond-mat/0512051]

14. Critical behavior of loops and biconnected clusters on fractals of dimension $d < 2$, (D. Das, S. Dey, J. L. Jacobsen +), J. Phys. A: Math. Theo., **41**, 485001 (2008).

E. Relaxation to equilibrium in magnets

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4. Stochastic evolution in Ising models, in *Stochastic Processes: Formalism and Applications*, Eds. G. S. Agarwal and S. Dattagupta, Lecture Notes in Physics **184** (Springer, Berlin, 1983), p.300.
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7. Hysteresis and self-organized criticality in the O(N) model in the limit $N \rightarrow \infty$, (+ P. B. Thomas), J. Phys. **A25** (1992) 4967.
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5. Directed percolation in two and three dimension II: Direction dependence of the wetting velocity, J. Phys. **A15** (1982) 1859.
6. Enumeration of directed site animals on two dimensional lattices (+ M. K. Phani and M. Barma), J. Phys. **A15** (1982) L279.

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17. Enumeration of directed site animals on decorated square lattices, (A. A. Ali +), *Turkish J. Phys.*, **18** (1994) 389.
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I. Systems of hard particles

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2. On the orientational ordering of long rods on a lattice, (A. Ghosh +), *Europhys. Lett.* **78** (2007) 20003. [cond-mat/0611361]

3. Exact entropy of dimer coverings for a class of lattices in three or more dimensions, (+ S. Chandra), Phys. Rev. Lett., **100**, 120602 (2008). [arXiv:0711.3021]
4. Bethe approximation for a system of hard rigid rods: the random locally tree-like layered lattice (+ R. Rajesh and J. F. Stilck), Phys. Rev. **E 84**, 011140 (2011). [arXiv:1102.4138v1 (cond-mat.stat-mech)]
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J. Other papers

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K. Popular Articles, General Interest, Book Reviews, Books edited etc.

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