1. Abe, S.: Geometry of escort distributions, Phys. Rev.E 68 (2003), no. 3, 031101.

2. Abe, S. and Bagci, G. B.: Necessity of q-expectation value in non-extensive statistical mechanics, Phys. Rev. E 71 (2005), no. 1, 016139.

3. Abe, S. and Okamoto, Y.: Non-extensive Statistical Mechanics and Its Applications, Springer-Verlag, Heidelberg, 2001.

4. Aizenman, M., Kesten, H., and Newman, C. M.: Uniqueness of the infinite cluster and continuity of connectivity functions for short and long range percolation, Commun. Math. Phys. 111 (1987), no. 4, 505-531.

5. Amin, M.: Energy: The smart grid solution, Nature 499 (2013), no. 7457, 145-147.

6. Beck, C. and Schl¨ogl, F.: Thermodynamics of Chaotic Systems: An Introduction, Cambridge University Press, Cambridge, 1993.

7. Cristina, G. A. L., Eduardo, M., Luis, F. L., and Marcos, A.: Analogy between the formulation of Ising−Glauber model and Si epidemiological model, Appli. Math. and Phy. 7 (2019), no. 5, 1052-1066.

8. Dawson, D. A., Gorostiza, L. G.: Percolation in a hierarchical random graph, Communications on Stochastic Analysis 1 (2007), no. 1, 29-47.

9. Dettmann, C. P. and Georgiou, O.: Random geometric graphs with general connection functions, Phys. Rev. E 93 (2016), no. 3, 032313.

10. Durrett, R. and Nguyen, B.: Thermodynamic inequalities for percolation, Commun. Math. Phys. 99 (1985), no. 2, 253-269.

11. Franceschetti, M. and Meester, R.: Random networks for communication, Cambridge University Press, 2007.

12. Gilbert, E. N.: Random plane networks, J. Soc. Ind. Appl. Math. 9 (1961), no. 4, 533-543.

13. Grimmett, G. R.: On the differentiability of the number of clusters per vertex in percolation model, J. Lond. Math. Soc. 2 (1981), no. 23, 372-384.

14. Grimmett, G. R.: Percolation, Springer-Verlag, New York, 1989.

15. Gunnar, J.: Advanced Physical Chemistry: Statistical Thermodynamics, Swiss Federal Institute of Technology Zurich, 2015.

16. Jiang, J., Zhang, S., and Guo, T.: Russo's formula, uniqueness of the infinite cluster, and continuous differentiability of free energy for continuum percolation, J. Appl. Prob. 48 (2011), no. 3, 597-610.

17. Kazemi, O. K., Pourdarvish, A., and Sadeghi, J.: Phase transition in a stochastic geometry model with applications to statistical mechanics, Math. Meth. Appl. Sci. 8385 (2022), doi:10.1002/mma.8385.

https://doi.org/10.1002/mma.8385

18. Knight, K.: Mathematical Statistics, Chapman and Hall, CRC, 2000.

19. Levine, I. N.: Physical Chemistry, McGraw-Hill: University of Brooklyn, 1978.

20. Liangrong, P., Hong, Q., and Liu, H.: Thermodynamics of markov processes with nonextensive entropy and free energy, Phys. Rev. E 101 (2020), no. 2, 022114.

21. Mayants, L.: The Enigma of Probability and Physics, Springer, 1984.

22. Penrose, M. D.: Connectivity of soft random geometric graphs, Ann. Appl. Probab. 26 (2016), no. 2, 986-1028.

23. Penrose, M. D.: Random geometric graphs, Oxford University Press, Oxford, 2003.

24. Penrose, M. D.: On a continuum percolation model, Adv. Appl. Probab. 23 (1991), no. 3, 536-556.

25. Penrose, M. D.: Continuum percolation and euclidean minimal spanning trees in high dimensions, Ann. Appl. Probab. 6 (1996), no. 2, 528-544.

26. Quintanilla, J. and Torquato, S.: Clustering in a continuum percolation model, Adv. Appl. Probab. 29 (1997), no. 2, 327-336.

27. Rothman, K., Greenland, S., and Lash, T.: Epidemiologia moderna, 3nd ed., Art Med, Sao Paulo, 2011.

28. Tsallis, C.: Possible generalization of Boltzmann-Gibbs statistics, Jour. of Stat. Phys. 52 (1988), no. 1, 479-487.

29. Tsallis, C. and Gell-Mannin, M.: Non-extensive Entropy: Interdisciplinary Applications, Oxford University Press, 2003.

30. Tsallis, C., Mendes, R. S., and Plastino, A. R.: The role of constraints within generalized non-extensive statistics. Phys. A 261 (1998), 534-554.

31. Zhang, H. I. and Choi, M. Y.: Generalized formulation of free energy and application to photosynthesis, Phys. A 493 (2018), no. 2, 125-134.

32. Zhang, Y.: A derivative formula for the free energy function, J. Stat. Phys. 146 (2011), no. 2, 466-473.