

NONEXTENSIVE STATISTICAL MECHANICS AND THERMODYNAMICS: BIBLIOGRAPHY *

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GENERAL THEORY

Generalized entropy and thermostatics: [1]
Connection to thermodynamics, ensembles and Jaynes' information theory: [2–776]
H-theorem and irreversibility: [777–782,818–828]
Ehrenfest theorem, von Neumann equation: [3,829–832,959]
Quantum statistics: [834–868,870–887,700,701,708,702–707]
Variational and perturbative methods; Bogolyubov inequality; Green functions; Path integral; Boltzmann equation: [847,888–948,1045,2062–2070]
Langevin and Fokker-Planck equations: [781,783–789,980,791–817,838,949–979,981–1090]
Fluctuation-dissipation, Nyquist and Onsager reciprocity theorems: [6,1091–1097,1099–1101]
Kubo's linear response theory and Kramers-Kronig relation: [1095]
Poisson equation: [1102,1103,2292,1106,2293,2294]
Callen identity: [1107]
Ising transmissivity: [1108]
Classical equipartition principle: [1109–1111]
Connection with quantum uncertainty: [1112–1131]
Connection with Fisher information measure: [1132–1138]
Connection with ergodicity, nonlinear dynamical systems, self-organized criticality, cellular automata and fractals: [9,24,27,28,884,1139–1185,1187–1190,1204–1356,1358–1400]
Connection with general relativity, cosmology and string theory: [1133,1401–1414,1416–1447]
Connection with quantum groups and quantum mechanics: [1448–1486]
Connection with wavelets; Signal processing; EEG: [1487–1497,1657,1648,1678–1700]
Connection with quantum correlated many-body problems: [1747–1753]
Connection with the Gentile and the exclusion Haldane statistics: [1754–1757]
Connection with finite systems: [1091,1754]
Rigorous results (generalized entropy and thermostatics): [1141–1143,1146,1758–1763]
Integral transformations (Hilhorst and Prato formulae): [836,1091,1764,1765,1768]

ONE-BODY SYSTEMS

Two-level system: [1,1786]
Harmonic oscillator: [1762,1786–1788]
Free particle: [1789]
Larmor precession: [831]
Rigid rotator: [1765–1767]
Hydrogen atom: [1790–1798]

*This regularly updated Bibliography (at <http://tsallis.cat.cbpf.br/biblio.htm>) contains 2916 articles from 2258 (co)authors. It does *not* address the vast existing literature addressing nonextensive thermodynamical anomalies, but *only* articles including at least one substantial relation with nonextensive statistical mechanics and thermodynamics. It is a fairly complete listing whose indexation, however, is only indicative.

MANY-BODY SYSTEMS

Ideal and other classical gases: [1091,1109,1764,1769–1785]

Independent spin paramagnet, Landau magnetism : [1453,1455–1458,1799–1803]

Black-body radiation and photonic systems: [1804–1830]

$d = 1$ Ising ferromagnet: [1831–1835]

$d \geq 2$ Ising and other ferromagnets: [1108,1836–1866,2273–2279]

Infinite-range Ising ferromagnet: [1867]

Potts ferromagnet, Molecular field approximation: [1107,1851,1868–1871]

Percolation: [1872,1873]

Electron-phonon systems; tight-binding-like Hamiltonians; nanosystems; theoretical chemistry: [1874–1882,1884–1896,2244,1897–1912]

APPLICATIONS

Self-gravitating systems, Stellar polytropes, Vlasov equation: [932,1102,1133,1913–1969]

Distributions in galaxies and galaxy clusters: [1970–1973,1975–1987]

Lévy-like anomalous diffusion: [1988–2024]

Correlated anomalous diffusion: [15,950,951,960–962,964,965,968,969,974,975,977,979,980]

Turbulence; Granular matter; Viscous fingering; Navier-Stokes equation; Boltzmann equation; Mossbauer effect: [1102,2025–2028,2030–2061,2071–2169]

Solar neutrinos; High energy physics; Cosmic rays: [2170–2222,2378–2386,2223–2271]

Ferrofluid-like materials, Lennard-Jones fluids: [2272,2273,2280–2292,1105]

Solitons: [2295,2296]

Plasma (electron velocity distribution, magnetohydrodynamics): [2297–2316,2318–2330]

Glass, Spin-glass: [2331–2337,2339]

Superfluid helium; Bose-Einstein condensation: [2340–2349]

Test of Boltzmann-Gibbs thermostatics: [1404,1807,1808]

Cosmic rays; Elementary particles: [2350–2377,2387–2416,?,2418–2432]

Biological systems; Microemulsions; Liquid crystals: [2433–2444,2463–2485,2809–2816]

Stochastic resonance; Brownian motors: [2486–2488,2490–2505,2507]

Connection with the Theory of perceptions: [15]

Connection with the Theory of finances: [6,2031,2506,2508–2573]

Consistent testing; Statistical inference; Theory of probabilities: [2574–2585,928,305–317]

Theory of functions: [2586–2604,2606–2623,2625–2635,2664,2637–2656,710–715]

Simulated annealing and optimization techniques; Monte Carlo (Genetics, Traveling salesman problem, Data fitting curves, Quantum chemistry, Gravity models, Lennard-Jones clusters, Thomson model, spin systems, proteins, nucleic acids): [1861,2445–2462,2657–2804]

Neural and other networks: [2805–2810,2817–2862]

Analysis of time series (nonlinear dynamics, epilepsy, earthquakes, economics) and images: [1487–1491,1494–1522,1524–1551,1560–1595,1597–1611,1613–1655]

Geophysics: [1521,1648,1656–1677]

Medicine; Tomography: [1498,1678,1683,1685,1701–1705,1552–1559]

Symbolic dynamics, linguistics, cognitive sciences, hydrology, ecology and other interdisciplinary applications: [1174,1175,1184–1187,1189–1203,1706–1727,2476,1729–1746]

GENERAL READING

Generalized thermostatics, Lévy distributions: [2863–2916]

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