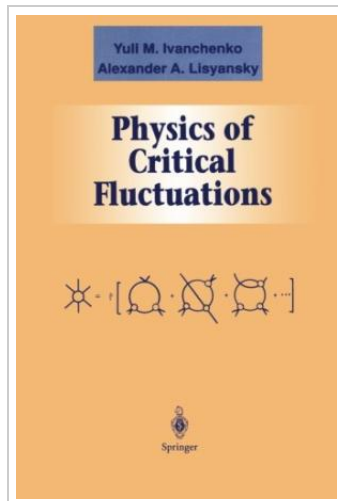



[DOWNLOAD](#)


Physics of Critical Fluctuations

By Ivanchenko, Yuli M. / Lisyansky, Alexander A.

Book Condition: New. Publisher/Verlag: Springer, Berlin | Building on Wilson's renormalization group, the authors have developed a unified approach that not only reproduces known results but also yields new results. A systematic exposition of the contemporary theory of phase transitions, the book includes detailed discussions of phenomena in Heisenberg magnets, granular super-conducting alloys, anisotropic systems of dipoles, and liquid-vapor transitions. Suitable for advanced undergraduates as well as graduate students in physics, the text assumes some knowledge of statistical mechanics, but is otherwise self-contained. | 1. Classical Approach.- 1.1 Introduction.- 1.2 Landau Theory.- 1.2.1 The Scalar Order Parameter.- 1.2.2 The Vector Order Parameter.- 1.3 Broken Symmetry and Condensation.- 1.3.1 Bose-Einstein Condensation.- 1.4 Ergodicity.- 1.4.1 Susceptibility.- 1.4.2 The Ergodic Hypothesis.- 1.5 Gaussian Approximation.- 1.5.1 Goldstone Branch of Excitations.- 1.5.2 Correlation Functions.- 1.5.3 Microscopic Scales in Phase Transitions.- 1.6 The Ginzburg Criterion.- 1.6.1 Critical Dimensions.- 1.7 The Scaling Hypothesis.- 1.7.1 Scaling Laws.- 2 The Ginzburg-Landau Functional.- 2.1 Introduction.- 2.2 Classical Systems.- 2.2.1 The Ising Model.- 2.2.2 The Heisenberg Model.- 2.2.3 Interacting Particles.- 2.3 Quantum Systems.- 2.3.1 The Heisenberg Hamiltonian.- 2.3.2 Bose Gas.- 2.3.3 Bose-Einstein Condensation.- 2.3.4 Fermi Gas.- 3 Wilson's Renormalization Scheme.- 3.1 Introduction.- 3.2 Kadanoff's Invariance.- 3.3 Wilson's Theory.- 3.3.1 Derivation of...


[READ ONLINE](#)

[9.3 MB]

Reviews

The best publication i actually study. I actually have study and so i am confident that i am going to likely to study once more yet again later on. You will not sense monotony at at any moment of your respective time (that's what catalogs are for relating to if you ask me).

-- **Ernest Berghaum**

Excellent eBook and beneficial one. It is amongst the most amazing pdf i actually have study. Your daily life period will likely be convert when you full looking at this pdf.

-- **Janelle Kub PhD**