

Non-linear Dynamics Near And Far From Equilibrium

[DOWNLOAD HERE](#)

1: Introduction- 2: Models of Dynamics. 2.1. Introduction. 2.2. Langevin Picture. 2.3. Fokker-Planck Description. 2.4. Dynamics of a Magnet near its Critical Point. 2.5. Systems not in Equilibrium. 2.6. Models of Growth. 2.7. Turbulence.- 3: The Renormalization Group. 3.1. Introduction. 3.2. Renormalization Group: General Framework. 3.3. Dynamics of Model A. 3.4. Inclusion of Reversible Terms. 3.5. Field Theoretic Form.- 4: Mode Coupling Theories. 4.1. Introduction. 4.2. Self-Consistent Mode Coupling. 4.3. Spherical Limit.- 5: Critical Dynamics in Fluids. 5.1. Introduction. 5.2. Equations for Transport Coefficients. 5.3. One-Loop Perturbation Theory. 5.4. Diagrammatic Perturbation Theory. 5.5. Self-Consistent Perturbation Theory. 5.6. Sound Propagation. 5.7. The Lambda Transition. 5.8. Generalized n-Vector Model.- 6: Systems far from Equilibrium. 6.1. Introduction. 6.2. Ginzburg-Landau Model. 6.3. Phase Ordering Kinetics. 6.4. Topological Defects. 6.5. The Structure Factor. 6.6. Approximate Techniques. 6.7. Renormalization Group for Late Stage Behaviour.- 7: Surface Growth. 7.1. Introduction. 7.2. Edwards-Wilkinson (EW) Model. 7.3. Kardar-Parisi-Zhang (KPZ) Model. 7.4. KPZ Equation and the Renormalization Group. 7.5. KPZ Equation and Mode Coupling Theories. 7.6. Growth with Surface Diffusion. 7.7. Discrete Models. 7.8. Growth Models with Correlated Noise. 7.9. Growth Models with Non-Locality. 7.10. Roughening Transition. 7.11. Quenched Noise. 7.12. Coupled Growth Models.- 8: Turbulence. 8.1. Description of the Turbulent State. 8.2. Kolmogorov Phenomenology. 8.3. The Correlation Function. 8.4. Randomly Stirred Model. 8.5. Advection of a Passive Scalar. 8.6. Intermittency Phenomenology. 8.7. Perturbation Theory. 8.8. Dynamical Systems and Turbulence.- 9: Polymer Dynamics. 9.1. Introduction.- Appendix A Functional Integration- Appendix B Field Theoretic RG- Subject Index EAN/ISBN : 9781402053887 Publisher(s): Springer Netherlands Format: ePub/PDF Author(s): Bhattacharjee, J.K. - Bhattacharyya, S.

[DOWNLOAD HERE](#)

Similar manuals: