

Theory of Critical Phenomena: An Introduction to the Renormalization Group

für Bachelorstudierende nach TP4 und
Masterstudierende (Wahlvorlesung im Schwerpunkt B)

open to anyone interested, lectures will be in English

phase transitions, critical exponents, universality

order parameters and effective field theories,
Landau-Ginzburg Hamiltonian, mean-field

scaling hypothesis and critical exponent relations

Kadanoff scaling theory
position-space renormalization
Migdal-Kadanoff procedure

diagrammatic perturbation theory
 ϵ -expansion

some flexibility based on interests/prior knowledge:
dynamical RG/functional RG/maybe some QFT,QED

Questions, expressions of interest, scheduling issues etc. :
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