ETH
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Solid State Theory
Exercise 7

FS 15
PD V. Geshkenbein

Problem 7.1 Volume change under deformation

Show that the relative change of volume under deformation is $\delta V/V = \mathrm{div}\mathbf{u}$

Problem 7.2 Quantum corrections to classical specific heat

Calculate the high temperature corrections to the Dulong Petit law in the Debye model.

Problem 7.3 Specific heat in d-dimensions

Find the low temperature specific heat for a two-dimensional crystal. What happens in d - dimensions?