Curricular Unit
Advanced Physics Topics 1

Module
Correlations Effects in Low-Dimensional Materials and Systems (CELDM)

Type
Lecture course

Contact hours
18

Professor/Researcher in charge
José Carmelo, U. Minho

Summary of Contents
Why are the effects of many-body interactions more important in lower dimensions?
The Fermi liquid versus non-perturbative low-dimensional electronic problems.
The Luttinger liquid and beyond it.
Solvable 1D electronic models.
Different properties of integrable and non-integrable 1D quantum problems.

Evaluation
Written report with oral defense

Juri
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