物理学特別講義 XIII & XIV

Solid State Theory I & II

Course Summary

This is a graduate level course for those whose major is theoretical condensed matter physics, but excellent undergraduates are welcome, in fact encouraged, to take the course. The background is needed in Solid State Physics, Quantum Mechanics and preferably, Advanced Quantum Mechanics. In the course, some basics of quantum statistical physics will be also introduced.

Lecturer

Prof. Ming-Wei Wu

University of Science and Technology of China
& Visiting Professor in Kyushu Univ.
(June 1st ~ Aug. 31st, 2015)

Topics (We will talk about several subjects in the following list)

- Phonons
- Transport Theory
- Magnetic Order
- Density Functional Theory
- Intersubband Transitions & Excitons
- The Localization
- Localized Impurity States
- Quantum Hall Effect
- Localized Vibration & Localized Modes
- Wannier Function & Bogoliubov Diagolization
- Electron-electron Interaction
- Electron-Phonon Interaction
- BCS Theory for Superconductivity
- Hubbard Model
- Kondo Effect

and more

Schedule

June

sun	mon	tue	wed	thu	fri	sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

July

sun	mon	tue	wed	thu	fri	sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

The lectures will be held on the highlighted days.
Each lecture will start from 2:00 pm and will take 2 hours.

Venue

2nd main building, Faculty of Sciences
Lecture Room for Graduate School in Department of Physics. (#2263)
理学部二号館　物理学科　大学院講義室