

Course Schedule of MST Program ,TIGP

Semester: Spring, 2013(101 學年度下學期)

Course(科目): 當代原子與分子物理導論- Introduction to Recent Trends in Atomic and Molecular Physics

Time(時間): 9:1 0~12:00 am, Tuesday(T2T3T4)

Room(教室): 209 IAMS 中研院原分所 R209 (台大校園)

Course speakers(授課老師): Kaito Takahashi 高橋開人、Michitoshi Hayashi 林倫年、Jim Jr-Min Lin 林志民、Ying-Cheng Chen 陳應誠、Ming-Shien Chang 張銘顯、Yu-Ju Lin 林育如

Elective(選修課), credit(學分): 3

Date	lecturer	Date	lecturer
2/19 Tuesday 9:1 0~12:00	Prof. Kaito Takahashi	4/23Tuesday 9:1 0~12:00	Prof. Ying-Cheng Chen
2/26 Tuesday 9:1 0~12:00	Prof. Kaito Takahashi	4/30 Tuesday 9:1 0~12:00	Prof. Ying-Cheng Chen
3/5 Tuesday 9:1 0~12:00	Prof. Kaito Takahashi	5/7 Tuesday 9:1 0~12:00	Prof. Ming-Shien Chang
3/12 Tuesday 9:1 0~12:00	Prof. Michitoshi Hayashi	5/14 Tuesday 9:1 0~12:00	Prof. Ming-Shien Chang
3/19 Tuesday 9:1 0~12:00	Prof. Michitoshi Hayashi	5/21 Tuesday 9:1 0~12:00	Prof. Ming-Shien Chang
3/26 Tuesday 9:1 0~12:00	Prof. Michitoshi Hayashi	5/28 Tuesday 9:1 0~12:00	Prof. Yu-Ju Lin
4/2Tuesday 9:1 0~12:00	Prof. Jim Jr-Min Lin	6/4 Tuesday 9:1 0~12:00	Prof. Yu-Ju Lin
4/9 Tuesday 9:1 0~12:00	Prof. Jim Jr-Min Lin	6/11 Tuesday 9:1 0~12:00	Prof. Yu-Ju Lin
4/16 Tuesday 9:1 0~12:00	Prof. Ying-Cheng Chen		

Speaker	Week	Date	Topics
Prof. Kaito Takahashi	1	2/19	Recent success in using quantum simulations to understand interesting problems in physics and chemistry; Born-Oppenheimer approximation
	2	2/26	Quantum methods for molecular; Potential Curve for diatomic molecules (linear combination of atomic orbitals)
	3	3/05	Vibration of diatomic molecules ; Vibration of diatomic molecules
Prof. Michitoshi Hayashi	4	3/12	Molecular Structure and Spectroscopy
	5	3/19	Photoindued Dynamics of molecules
	6	3/26	Introduction to Excited State Theory
Prof. Jim Jr-MinLin	7	4/02	The molecular links between quantum mechanical and classical views

	8	4/09	A few selected experimental techniques
Prof. Ying-Cheng Chen	9	4/16	Atom-photon interaction
	10	4/23	Atom-photon interaction
	11	4/30	Laser cooling and trapping of atoms
Prof. Ming-Shien Chang	12	5/07	Manipulation of single atoms and photons
	13	5/14	Manipulation of single atoms and photons
	14	5/21	Quantum Information with controlled quantum systems
Prof. Yu-Ju Lin	15	5/28	Bose-Einstein condensates
	16	6/04	Selected topics of cold atoms in optical lattices
	17	6/11	Atoms dressed by photons