IPT 543000 Ultrafast Optics

Fall 2011

Information Sheet

Lecturer: Prof. Shang-Da Yang (楊尚達)
Office: EECS 512 (資電 512)
Email: shangda@ee.nthu.edu.tw
Course website: http://www.ee.nthu.edu.tw/~sdyang/Courses/Ultrafast.htm
Class time: W5W6, R8
TA: 陳季丞, chichn123@gmail.com, Tel: 0952-952-968, NTHU ext. 34177
TA hours: Monday 12:10−1:10 PM, R118, Engineering Bldg. III (工三 118)

■ Text book:
References: Lecture slides (pdf files, available on the course website)

■ Syllabus:
1. Introduction & review (6 hours: 9/14, 9/15, 9/21, 9/22)
2. Active mode-locking (5 hours: 9/28 教師節,照常上課, 9/29, 10/5)
3. Light-matter interaction (5 hours: 10/6, 10/12, 10/13 IEEE Photonics Conference 停課, 10/19, 10/20, 10/26)
4. Passive mode-locking (7 hours: 10/26, 10/27, 11/2, 11/3, 11/9, 11/10 as reservation)
5. Midterm 1 (11/17, 4:20-6:20 pm)
7. FROG & SPIDER (5 hours: 11/30, 12/1, 12/7, 12/8)
8. Dispersion and dispersion compensators (6 hours: 12/14, 12/15, 12/21, 12/22)

10. Q&A, special topics upon request (3 hours: 12/28, 12/29)

11. Term-project oral presentations (6 hours: 1/4, 1/5, 1/9, 1/10, 1/11, 1/12)

- Grading policy:

  1. Homework (30%): neither delay nor plagiarism is allowed.
  2. Two midterms (25% each): tentatively scheduled on 11/17, and 12/22-28, respectively.
  3. Term project (20%): oral presentations (revision could be required).
  4. Bonus points: properly answering one bonus question in class may earn 1-3 points of semester score. Presence & thinking are encouraged.

- Special comments:

  1. Try to couple the deduced formulas with physical intuition.
  2. Build up your own computer simulation capacity to examine classical formulas. A plot could impress you more and longer than dozens of equations.