Spring 2004 Semester    PHYS 308

Prof. Axel Drees
Office: Physics C 105 (will change to C 104 during the semester)
Office hours: We 10:30-12:00pm or by appointment
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TA (grading home work problems): Ivar Lyberg
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Office hours: TBA

• **Schedule of the course:**
  Class: Monday, Wednesday, Friday 9:35am - 10:30pm
  Room: P127

• **Content of the course:**
  An introduction to Quantum Mechanics:

  1. Introduction to Quantum Mechanics
     Schroedinger equation and wave functions
  2. Time independent Schroedinger equation
     Determining the wave function for specific potentials
     Like square well, simple harmonic oscillator
     Quantization of Energy
     The scattering matrix
  3. Formalism
     Linear Algebra, Function space
     Generalization of concepts from 1. and 2.
  4. Quantum Mechanics in three Dimensions
     The Hydrogen atom, angular momentum and spin
  5. Identical particles
     Two particle systems
     Atoms, Solids

• **Text book:**

  The course will cover chapters 1-5.

• **Requirements:**

  Attendance to the lectures is expected. I will handout homework problems from Griffiths almost every lecture.
  The solutions will be collected at the following lecture. The problem solutions will be graded and constitute 30% of your final grade. There will be probably two mid-term exam during class (tentatively on March 5th and April 2nd). The final exam will be on May 14th from 8 a.m. to 10:30 a.m.
• **Grading:**

  Homework problems  30%
  Midterm exam        15% + 15%
  Final exam         30%
  (tentative final grading: >90% A, 85% A-, 80% B+, 75% B, 70% B-, 60 % C+, 55 % C)

If you have a physical, psychiatric/emotional, medical or learning disability that may impact on your ability to carry out assigned course work, I would urge you to contact the staff in the Disabled Student Services office (DSS), Room 133 Humanities, 632-6748/TDD. DSS will review your concerns and determine with you what accommodations are necessary and appropriate. All information and documentation of disability is confidential.