

Modern Physics Laboratory Presentations



*Modern Physics Laboratory
Department of Physics and Astronomy
Vassar College*

Spring 2003



Course Outline

- 2 weeks of Introduction to Tools and Methods
- 2 weeks each for Experiments 1-4
- 2 weeks for elective Experiment 5
- Final Presentations

For each lab one team member was "first author" and wrote the bulk of the paper, with help from "second author". Roles were switched for the next experiment.

Each person writes a lab report and gives a presentation for the elective Experiment #5.



Modern Lab Experiments

<u>A</u>	<u>B</u>	<u>C</u>
Muon Lifetime Speed of γ Rays Michelson Interferometer Electron Charge (Oil Drop) Photoelectric Effect	Complex Impedance <i>Acousto-Optic Effect</i> <i>Black Body Radiation</i> Fourier Transform <i>Holography</i> <i>Electron Diffraction</i> <i>HeNe Laser Assembly</i>	<i>Atomic Spectroscopy</i> <i>Cavendish gravity expt.</i> Compton Scattering Black Body II Cosmic Rays II Fiber Optics Signaling Electron Spin Resonance Hyperfine Structure of Rb Nuclear Spin Resonance Semiconductor Band Gap Franck-Hertz expt. Pound-Rebka expt. Sonoluminescence Monte-Carlo method Casimir Effect Electron double-slit



Reminders

- Lab Notebooks must be turned in for inspection today.
- Course evaluations (both from Registrar's office and from Major's committee) should be filled out and returned to _____(?)
- Please fill out the Evaluation of Experiments and return to me or Mr. Lawrence. Giving your name is optional.
- There is no final exam, after today you are done.
Good luck with all your other finals!