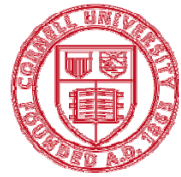


CIPT Fall 2008 Workshop



"Power and Resistance" (...and we're not talkin' politics!)

Cornell University
Saturday October 11, 2008

Schedule

8:30 - 9:00	Registration and Continental Breakfast
9:00 - 9:15	Welcome - Julie Nucci
9:15 - 10:15	Lecture - Prof. Shefford Baker "How Stress and Defects Kill Your Computer"
10:20 - 12:00	Lab Tours
12:00 - 1:00	Lunch
1:00 - 2:15	Lab Activity
2:15 - 3:30	Lab Activity
3:30 - 4:00	Closing and Evaluation
4:00 - 4:30	Coffee and Conversation (optional)

Lab Activity I - "The Nature of Resistance"

Students perform a series of guided activities that illustrate how atomic and macroscopic features of metals relate to resistance and conductivity. Activities include: thermal considerations of resistance, electron drift under an applied voltage, the effect of defects on resistivity, and the effect of length and cross-sectional area on resistance.

Lab Activity II - "Transformers - More V, Less Heat and I!"

Students will learn what transformers are and how to construct one, analyze what factors affect the power loss of a transmission line, and explore some of the differences between AC and DC electricity.