SOCIETY OF PHYSICS STUDENTS (SPS) EVENT

Studying Polymers with DLS and FPR: a summer with REU & Undergraduate Research Experience

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Student participation in an REU (Research Experiences for Undergraduates) program is very exciting for a number of reasons. For one, REUs are funded by the National Science Foundation (NSF), which means, *you* will be funded by the NSF. This is a good thing considering that many professional research grants are also funded by the NSF. If you can get the government to give you money early on, it may be easier for them to give you money later. Another advantage is that REUs are good earmarks to have on your graduate admissions application just because the REU label is well known and respected. In this talk, I will review my REU experience at Louisiana State University as well as my Undergraduate Research Experience at CSU this summer.

My research project focused on studies of dynamic properties of HPC (Hydroxy-propylcellulose) in aqueous solutions through two experimental techniques: Fluorescence Photo-bleaching Recovery (FPR) and Dynamic Light Scattering (DLS). The project's goal was to sort out empirical inconsistencies in polymer dynamics observed by two methods. In particular, results from DLS indicated reliable presence of a slow mode of diffusion that was not observed reproducibly in FPR experiments. Understanding reasons behind the inconsistencies should help to explore the nature of the slow diffusion mode.

WHERE

SI – 117 (room next to Physics Computer Lab)

WHEN

Noon- 1pm
Tuesday, October 23, 2007