PITT/SIUE HIGH SCHOOL OUTREACH ACTIVITIES

Past Work of Thompson

1. Various work with Pittsburgh teachers, including undergrad visits to HS physics classes, etc.
2. Research Corp. and NSF support of HS teacher collaboration: analysis of Novosibirsk e+e- scattering, and building Cerenkov counters for E865 (Search for $K \to \pi\mu e$ at BNL).

Present Work of Thompson in southern Ill. (Adjunct Prof. of Physics at SIUE)

- Inventory and Troubleshooting Hands on Activities and Equipments
- Development of activities matched to interests, skills, and resources of a given teacher and classroom. (elementary electrical circuits, levers, oscilloscopes, optics....)
- Light Scattering as an example of inference of structure from scattering.
- Elementary particle physics (quarks, etc), in conjunction with optics or Thompson's HEP work.
- Advice to E. St. Louis Upward Bound on hands on activities and Science Fair Projects.
- Gradual development of "CosRayHS" project (so far just standard scintillator coincidence) with local area teachers, including helping local high school classes build and test scintillators on atmospheric cosmic rays. (see http://www.phyast.pitt.edu/∼jth/CosRayHS.html, and http://www.siue.edu/∼juthomp and links therein for more details. The SIUE link has pictures, a report of activities, and other documents developed in summer, 2001.
- As part of an NSF REU site, RET activities have included CosRayHS, standard HEP collaboration, and lead abatement. Pictures and some details may be found on the sites mentioned above.

PITT/SIUE QUARKNET PLANS

- Jeff McDonald (Young Physicists' Network), Julia Thompson (see previous page), together with Dave Kraus and Donna Naples, will be organizing a Quarknet Site this summer.
- Teachers will be recruited from Southern Illinois.
- Teachers will participate in muon monitor chamber construction or testing (either at FNAL or Pittsburgh, as appropriate, depending on the progress and plans for these chambers).
- Teachers will spend part of the summer learning about the CosRayHS project at SIUE.
- The lead teachers, supported by MacDonald, Thompson, Naples, and Kraus, will decide on the focus of the second year workshop. MacDonald and/or Naples will likely visit Southern Illinois, to maintain contact with the teachers and visit their classrooms during the school year, at least once. Thompson and Kraus spend the winter months in southern Illinois and will work locally with the lead teachers and their plans for the second year workshops.