Beyond Human Error
QuarkNet Teachers Workshop
Summer 2012
Fermi National Accelerator Laboratory

Wednesday, August 1st, 2012 (One North)
8:30 AM – Chris Stoughton
9:00 AM - Rob Roser
9:45 AM - Katie Mummah (Brian Yanny)
10:30 AM – Adam Ravas (Doug Spolyar)
11:15 AM – Kit Chinnetti and Sohaila Mali (Fritz DeJongh)
1:00 PM - Lederman Science Center Tour
2:00 PM – Activity Sessions
4:00 PM – Chris Stoughton

Thursday, August 2nd, 2012 (One North)
8:30 AM – Chris Stoughton
9:00 AM - Craig Hogan
9:45 AM - Nick Pratt (Chris Stoughton)
10:30 AM - Akshay Ivatury (Jim Volk)
11:00 AM - Jim Volk
12:45 PM – Tevatron/CDF Tour
2:00 PM – Activity Sessions
4:00 PM – Chris Stoughton

Friday, August 3rd, 2012 (One North)
8:30 AM – Chris Stoughton
9:00 AM - Dan Hooper
9:45 AM - Tom Klonowski (Ted Liu)
10:30 AM - Saksham Malhotra (Paul LeBrun)
11:00 AM - Thomas Wester (Stephen Pordes)
1:00 PM – Activity Sessions
3:00 PM – Chris Stoughton

Activity Sessions

Making Holograms: Geoff Schmit
(Aquarium, 15S)

Using Photo Multiplier Tubes: Kristy Lubinski
(The Loft, Transfer Gallery)

Simple Harmonic Motion is everywhere: George Dzuricsko
(One North)

Featured Physicists: "Chalk Talks"

Rob Roser
Scientific Computing Division
Scientific Programs

Craig Hogan
University of Chicago/Fermilab
Center for Particle Astrophysics

Dan Hooper
Particle Physics Division/Astrophysics

QuarkNet Program Mentor Scientists:

Chris Stoughton
Scientific Computing Division
Scientific Programs
Experimental Astrophysics
Fermilab Holometer

Fritz DeJongh
Particle Physics Division
Experimental Physics Projects
Non-accelerator Physics

Quarknet Project Mentor Scientists:

Brian Yanny
Scientific Computing Division
Scientific Programs
Experimental Astrophysics

Doug Spolyer
Particle Physics Division/Astrophysics

Jim Volk
Accelerator Division
External Beams Department

Ted Liu
Particle Physics Division
CDF/Physics

Paul LeBrun
Scientific Computing Division
Future Programs and Experiments
Accelerator and Detector Simulations and Support
Computational Physics for Accelerators

Stephen Pordes
Particle Physics Division
Experimental Physics Projects
Fixed Target Particle Physics Division
Neutrino Department

Joining Instructions
(and even better descriptions)

Wednesday 8/1
Morning Session:
Keynote Scientist: Bob Roser (Higgs Boson and High Energy Physics)
Student and Scientist Topics: Astronomical Evidence for Dark Matter and Direct Detection of Dark Matter

Afternoon Session:
Leon Lederman Science Education Center Tour
Activity: Cosmic Ray Detectors, Cloud Chambers, Photomultiplier Tubes*

Thursday 8/2
Morning Session:
Keynote Scientist: Craig Hogan (Holographic Universe)
Student and Scientist Topics: Fermilab Holometer and Seismometers at Fermilab

Afternoon Session:
Tevatron Tour
Activity: Making Holograms*

Friday 8/3
Morning Session:
Keynote Scientist: Dan Hooper (Theoretical Astrophysics)
Student and Scientist Topics: Accelerators and Detectors

Afternoon Session:
Activity: Seismometers in the Classroom*

*We will be in small groups for the activities and rotate between them throughout the days

Logistic Details
You can enter the lab from either Rt 59 or Kirk Rd. You will have to show your driver's license to the security guard at the gate. Tell them you are attending a workshop at Wilson Hall. Parking can be found on the east and west sides of Wilson Hall and around the pond in front of Wilson Hall. We will meet at 8:30 AM each morning in 1 North. Each day lunch will be held in the Fermilab cafeteria. You can bring your own lunch or purchase lunch at the lab. The workshop will last from 8:30-4:30 each day. We would like for each participant to bring a laptop but if you are not able that is okay. Finally, on Thursday, August 2nd, we will be touring a portion of the Tevatron. To access the ring you must wear closed toe shoes and be able to walk down two steep sets of stairs.