

## DANGO (Doings and Goings On)

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### Updates from the Students



FROM ANDREW MILLER:

Hello Dango!

This week has been quite exciting! Ryan and I arrived at the lab on Saturday evening after several days of driving. We both got in the gate okay, but we had some minor difficulties getting the key to the Towell's apartment since we were the first to arrive.

On Sunday night, the rest of the gang showed up, and on Monday we got our badges, filled out forms, and went through several training lectures, for BNL in general, and also for working shifts at PHENIX. The next day we began our shift in the control room. Except for Ryan, who works the 4pm-12am shift, we are all working the 8am-4pm shift. My role is the Voltage Controller. I basically just turn the high voltages on and off and reset

channels when the high voltage trips off. The first few days we didn't actually have very much beam time during our shift, but the past couple days, we have had several good runs of data collection.

Because we're working a shift this week, we don't get a three day weekend. In fact, we don't get a weekend at all. This was unfortunate because my brothers all came up to NYC this weekend to see a bunch of shows on Broadway. Yesterday evening though I was able to take a train in to the city right after I got off of work, and joined them to see "Nice Work, if You Can Get it" and afterwards through some connections that Thomas has with the Musical Theater department at Texas State San Marcos, we were able to go backstage and meet the cast, including Matthew Broderick! It was a lot of fun.

Until next week,  
Andrew Miller

FROM RAMSEY TOWELL:

What's up DANGO, It has been a while since I had to write one of these and I think I can safely say that this is probably the main reason that I have chosen to do research again this summer. Unfortunately Walker graduated, and Mat and Aric decided to stay in Abilene this summer so all of my old housemates left me. The good news is though, that I have upgraded everyone this summer! Ryan and Andrew are up here and that is a big improvement, but our 4th is questionable and we will see how long he lasts.

Our first week up here has not been very interesting work-wise because we have been on shift from 8-4 everyday as well as this weekend. So that hasn't been a whole lot of fun, but we have gone to

see the new Star Trek (which was awesome), and we have had several good Dota and even some League games go on. My job while on shift this year is the highly desirable Data Monitor. Which means I observe the data we collect and then it is my job not to fix anything, but to tell other people to fix stuff. So that's pretty cool.

Okay well I think that is about it for this week. Next week Dr. D and my dad are leaving us, so we will have the apartment to ourselves, and we will start our normal work that we will be doing for the rest of the summer. We still don't know exactly what that will be, but it will most likely have to do with RPC analysis just like we did last year.

Peace,  
Ramsey

P.S. My League name is KingRameses if any of y'all want to add me and then we can get some BNL vs Fermilab or wherever else everybody is.



FROM RYAN PINSON:

So this week at BNL has been shifts, shifts, and more shifts. I was placed on the evening shift, 4:00pm-12:00am as the Shift Assistant, which mean I do not have a defined job. The idea is that I am the newbie and thus, I get to hop from position to position to learn how each station is run. I started out with the VC, Voltage Controller, which as you can guess deals with the control of

the low and high voltage that power the detectors. Next I transitioned to the DM, the Data Monitor not the Dungeon Master, where all the data graphs for the detectors are displayed. The other two position DAQ Monitor and Shift Leader are the last two positions to cover in next few days. Overall each position has its job in making sure the data collect is the best it can be.

–Ryan Pinson

FROM MARSHALL TOWELL:

So Monday was our first day on the lab and we spent all day doing training and meetings. Tuesday was our first day doing the day shift and I am the shift assistant so I mostly just try to learn what everyone else is doing. I now can kind of operate as the Voltage Control and know how to do the gas check for the Data Monitor. Earlier this week I also climbed to the top of PHENIX and helped one of the technicians change a fuse on the detector. Andrew Miller and I also went back to the past to take more measurements on J/Psi suppression to save the universe in the future, but besides that this week and been pretty uneventful.

 **Fermilab**

FROM NOAH KITTS:

Hey everyone! This first week at work has been great. It was cool coming back and seeing how the experiment is progressing and remembering how everything works. There is a lot of work that needs to be done this summer, and I look forward to getting a lot done. Some of the things we'll need to do this summer is add clip lines to all the hodoscope bases at station 3 and 4, change the bases on the station 1 and 2 hodoscopes, installing a new tracking chamber from U. Colorado, and installing the wire chamber we worked on last summer for station 3. We started prepping a lot of stuff so we can work on everything, and we should be able to start doing more next week. –Noah Kitts

FROM LACEY MEDLOCK:

Hi, This week has been pretty slow. We haven't done much yet. I got here on Sunday, and we have been doing training all week. We haven't done much else. We did get to test all of the hodoscopes to make sure they're still working and to see if they have any major light leaks, so that's something.

Elizabeth and I have been cooking a lot this week. Since Cindy hasn't been here yet, we've been on our own for dinner. I'm going to be really glad when we don't have to cook anymore. It's hard to make the right amount of food for people. I'm not done with training yet. That's what we've mostly been working on this week. Some of the training has been kind of funny, though. Like the traffic safety training. That's funny because I can't drive. But we've done quite a bit of training so far. That and setting up computers and stuff so that we can do actual work later.

See you,  
Lacey

## Updates from the Professors

FROM DR. MICHAEL DAUGHERITY:

Dear DANGO,

I'm squeezing in one shift at PHENIX as an itinerant physicist before heading to Texas and then Illinois next week. It is always fun being the PHENIX DAQ operator and having that much raw power under my command. You also get to spend a week playing error whack-a-mole, and that makes it difficult to get much other work done during the shift week. For instance, we had two alarms go off while I was writing this paragraph.

Our shift runs every day through Memorial Day weekend, so we have to make our own fun. I made a deal with the students that if we could go out for authentic Korean barbeque then I would install League of Legends. We both held up our ends of the deal. The Korean food was awesome—imagine fondue but replace the pot with a giant

gas grill. I ordered the pork belly (i.e. bacon), ACU alum Daniel Jumper and Dr. Towell got the thinly sliced ribeye, and Ramsey and Marshall got burning hot stone bowls of rice. It was more fun than being a n00b all over again. I do appreciate the guys letting me win a few games.

I'm flying home on Wednesday to grab my family and start the drive to UIUC. I'll write my next DANGO from Illinois.

—Dr. D

FROM SHON WATSON:

Dear DANGO,

This week, I traveled to Fermilab to work on SeaQuest. It has been a busy week. I've spent time working on training, orientation, computer accounts, and some software install/configuration issues.

We even started on hodoscope maintenance with a check of background rates for all of the stations 3 and 4 photomultiplier tubes (approximately 225 tubes). At first glance, some of the rates seemed unusual. Next week, we will continue working on the hodoscopes. The next tasks are to repair any light leaks, check the anode-to-ground resistance on the bases, investigate signal timing, and investigate pulse shaping (more specifically truncation) with clip lines.

—Shon Watson

FROM DR. RUSTY TOWELL:

Hello Dango,

The BNL crew of the ACU Nuclear Physics Research Group safely arrived on Long Island, NY last weekend and settled into our apartment. Monday we got our BNL and PHENIX training completed and did a bit of touring around the lab. We started taking shifts on Tuesday. There are five members to a complete PHENIX shift crew. So the day shift is an ACU only crew with Dr. Daugherty, Ramsey, Andrew, Marshall, and I. Ryan is the lone ACU member on the evening shift.

PHENIX is currently running 510 GeV polar-

ized proton collisions and will continue until June 10th. The run has gone extremely well in general and there is a real chance that we will record enough data to make the first W-boson measurement with the muon arms. Simulations for this measurement were started in 2002. A grant from the NSF was awarded to ACU, UIUC, and two other universities in 2005. The RPCs were constructed and installation in PHENIX was completed in 2011. If this run is successful and we can fast track the analysis, then hopefully we will finally publish results in 2014. A 12 year project that has involved dozens and dozens of ACU students.

Since we are on shift, we'll be working over the weekend and on Monday also. However, we have been enjoying our evenings. We've had an evening with the Moore's (preacher dude and his family) playing the mustache game, gone to see Star Trek, played a little DOTA, watched the Spurs win, and last night we went to have some Korean BBQ with Daniel Jumper (ACU class of 2009) followed by a little League of Legends action. I hope everyone has had safe travels and as good of a start to their summer.

Grace and Peace,  
Rusty



## Other News

### New Faculty

Dr. Matt Steele arrived in Abilene on May 25. He will join the Engineering and Physics faculty in the fall. Be sure to give him a warm welcome!

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### The Particle Data Group Announces:

The 2012 edition of the Review of Particle Physics is now available on the Web: <http://pdg.lbl.gov/>

- Summary Tables
- Particle Listings
- pdgLive
- Review articles

The PDG recommends our website for the public: [ParticleAdventure.org](http://ParticleAdventure.org)

We thank the 700 members of the particle physics community who contribute to the Review of Particle Physics.

We always welcome your suggestions for improvements.