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DANGO (Doings and Goings On) - Vol. 22 | Issue 1

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DANGO (Doings and Goings On)

Group Updates



FROM MATTHEW KIMBALL:

This week was crazy. I started off with bittersweet parting from all of my family and friends as I left for the summer, and then as soon as I woke up Sunday (May 15th) the hurricane of pure chaos began. And honestly, it is amazing. There is so much to learn here. As a previously inept coder I have already had to struggle through opening GUIs and ssh-ing and scp-ing and it has been an uphill battle. On top of that we got to PHENIX and I immediately was told "Watch these graphs." So this week has been a week of 2am and 6am runs out to a building full of hissing pipes and pressure gauges, and hours of clicking through the same 60 pages of graphs. But oh man has it been a great start to the summer.

-Matthew Kimball

FROM HALEY STIEN:

Hello, Dango, for the first time!

This week has been eat, sleep, work, repeat it seems. Being nocturnal is kind of cool, but I look forward to the end of these night shifts so that I don't have to sleep my days away. Learning how to work Voltage Control was fairly easy.. Until every server decided to die one after another. While everything was working correctly, however, I kept myself busy trying to upload my profile picture to the server. I feel like that might've been the most difficult thing I've done so far, which it probably should not have been. Other than that, my days consist of Netflix and naps. Thank you, Cecily, for bringing The Office and How to Train Your Dragon into my life. Also, the Carlos stuffed crust pizza definitely lived up to my expectations. I have never been full after just one slice of pizza until now.

See ya,
Haley Stien

FROM CECILY TOWELL:

Dearest Dango,

It has been too long my old friend. We arrived at BNL on Sunday night. On Monday, we worked on getting badges for the young ones (Haley and Matt) and got

caught up on everyone's training. Starting at midnight that night we began our midnight-8am shift that will continue until Tuesday. I am the DAQ operator, which means I am responsible for stopping and starting each run and reinitializing all of the granules in between to make sure all of the electronics are communicating nicely. Basically I have the most important and difficult job, but I have thus far handled it with aplomb. This is not a particularly enjoyable shift as we now sleep all day and are up all night, but we are enduring this predicament with grace (and with the help of caffeine and Chinese food).

Until next time.
Cecily Towell

FROM DR. RUSTY TOWELL:

Hello DANGO,

It is so exciting to be part of DANGO for its 22nd year. I remember when DANGO was created so long ago when email was still something new. Dr. Sadler had a great idea to help everyone working in the ACU Nuclear Physics Research Group to stay connected. Of course you couldn't read DANGO on your smart phone and we didn't have a picture of the week contest, but we did share what we were working on with each other.

The BNL branch of our group arrived on Long Island last Sunday. Matt, Haley, Cecily, and I spent Monday getting our training done and started taking shifts

at midnight. I'll admit that being on shift from midnight until 8am is not the funnest time to be working, but at least we have good company. We did get on a historic shift. We have the last shift on PHENIX for collisions of d+Au at full energy. It is sad on the one hand that this is the last year for PHENIX. However, with the number of problems and alarms we've been having this week, I'm not sure the detector has much life left in it.

I hope everyone's summer is off to an excellent start.

Grace and Peace,
Rusty



FROM ARIC TATE:

Hi Everyone,

I am currently at Los Alamos working for the Neutron Induced Fission Fragment Tracking Experiment (NIFFTE). I am doing analysis work on the alpha rate for two separate triggers of the NIFFTE time projection chamber. So far I have calculated an alpha rate for the cathode trigger and macro-pulse trigger using the data available to me. Since this calculation was not conclusive, I am now performing a statistical test to determine whether or not the two sets of data come from the same distribution. The particular test I am using

requires a large amount of permutations which is time consuming and might kill my Mac at any time. I also signed up for, studied for, and took the GRE this week. Do not do this.

-Aric Tate



FROM ZHAOJIA XI:

Hello everyone,

This is Zhaojia Xi. I am working at SeaQuest/E906 experiment in Fermi national accelerator laboratory this summer. After Joshua drove Paul and I for 18 hours, we arrived safely at Fermilab Sunday evening. We started working on Monday and we got our photo IDs, temporary dosimetry badges and got our computer accounts settled down. We learned how to use MySQL and ROOT. Dr. I and Dr. D gave us several lectures to help us understand more about SeaQuest experiment. We also went to a talk at Thursday afternoon, the speaker from Ohio state university talked about Nb₃Sn conductors for future accelerator magnets. Although I personally do not understand all the details, I have a deeper understanding about how to improve conductors. It has been a great week so far, I am really excited about this summer.

See Y'all next week,
Zhaojia Xi

FROM CALEB HICKS:

This week started with learning about SeaQuest and Fermilab in general. We got ID badges, radiation badges, and registered for mailing lists. We relied entirely upon Paul to make sure we didn't get lost, and as a result we consistently got lost until we stopped trusting Paul. The actual work we got done this week was mostly helping with odd jobs; lifting and moving high voltage power supplies, fixing serial cables, and so on. We also spent a good deal of time reviewing old pdf's from the SeaQuest document database to get more familiar with some of the past projects. We don't have internet yet at the apartment, and social order is rapidly breaking down. Hopefully the internet router will be delivered today so we can stop living like savages.

-Caleb Hicks

FROM JOSHUA MARTINEZ:

The first two days or so I dedicated mostly to memorizing the area due to the fact I am the only one with a car and Paul Carstens is not a reliable navigator even though he's been here before (he got us lost a lot). Apartment was chaos due to being 2 beds short but that problem is mostly solved and we still do not have internet at our apartment so what little sanity we had is practically gone. On the educational side we did fix a serial cable that its mapping was unknown, so we undergrads did map and repair the cable to

allow laptops to talk to a power supply system. We have also got to a talk about how to improve particle accelerators using Nb₃Sn cables. Other than that we are still learning the process of how SeaQuest runs so we can start shifts soon.

Sincerely,
Joshua Daniel Martinez

FROM PAUL CARSTENS:

As with most first weeks, it's been a bit slow. First day I renewed my ID and computing account and got my radiation badge. Turns out the whole SeaQuest building requires radiation badges, so that means there's, like, at least a 40% chance of one of the interns getting superpowers at some point. On an unrelated side note, left and right are really hard to tell apart, so if any non-specific person happened to get them mixed up and gives incorrect directions it's totally not a big deal. Over the next four days we've been working on some high voltage control crates. It's mostly been inserting and removing power supplies or dragging old HV crates out of storage. A more interesting task was repairing an HV serial cable. The noobies tested the pins while I soldered them in place. Beyond that we had several physics lectures from Dr D and Dr I. The week was fairly uneventful.

-Paul Carstens

FROM SHON WATSON:

Dear DANGO,

This first week has been fine. I arrived at Fermilab on Sunday. I've been working primarily on the HV power supply issues. Yesterday, we had some success communicating with some of the HV controller modules. Unfortunately, they don't seem to be working as well today.

-Shon Watson

FROM DR. MIKE DAUGHERITY:

DANGO,

I'm always grateful when everyone arrives in one piece. We've made a lot of progress in jumping through the right hoops in the right order to get ready for shifts next week. We even got an impromptu lesson on radiation safety when a rad tech discovered something radioactive sitting out unlabeled on the table.

Really ready for the weekend,
Dr. D

FROM DR. DONALD ISENHOWER:

To all in Research Land,

This week was spent in getting students started and trying to get myself started on a task I only found out about a day before I left. They asked if I had students who I could assign to work on it, which with five here at FNAL I do, but there is this little comment at the beginning of the repair document in bold-

face warning about working on the power supplies to be extremely careful as touching the wrong part results in **“DEATH ON CONTACT.”** The problem is that Fermilab no longer has anybody left who knows how to repair our high voltage power supplies. We had been OK we a few spares, but a lightning strike took away that aspect and we have one system now running on a different HV system until I can get enough of the LeCroy 1440 HV system modules repaired to where we have a full system and a spare to put it back in. Paul has the most electronics background, so he is the most likely choice to be my helper. If I had known earlier that I was going to be assigned to working on repairing these modules I would have packed different things as these are old designs and require some of my really old stuff I chose to leave behind in Abilene.

Otherwise things went as typical for the first week. The data rate we are running at is what our experiment was designed for, which is great. We have some problems, such as getting low on spares on some modules for our DAQ system, but that’s not unusual when you’ve been running for three years. Our run is extended to July 30, so we are running about 3 weeks longer than planned. That’s good since the accelerator and detector are running well. Next week I serve as Run Coordinator, which just means I’m in charge of making sure everything gets done. We also start taking shifts on

SeaQuest, which will be just the start of a large number of shifts.

Now if we can just get better sleeping surfaces for all four guys in their apartment, we will be sure to have rested students, OR, we can keep two of them on shift at any given time and then they can sleep in shifts on the real beds!

-Dr. I.

Picture of the week candidates

Joshua: “Civilization has arrived (i.e. the router) #nerdcave”



Cecily: “Midnight shift takes a toll on Haley”



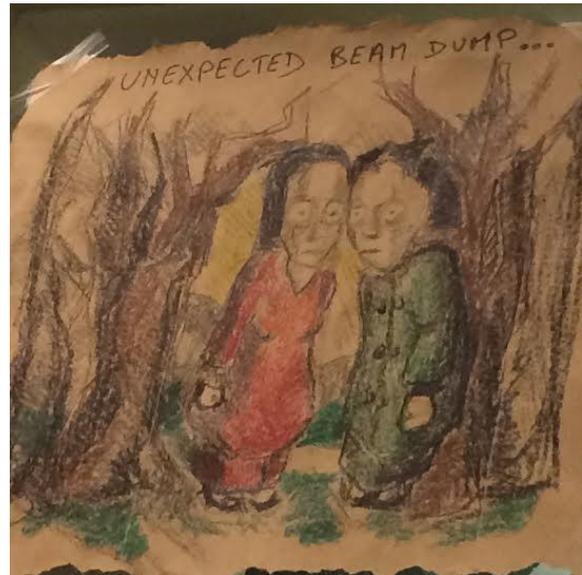
Dr. D: “Came home for lunch on Monday and found two strange clumps on the door handle. When I touched them they exploded into hundreds of tiny yellow spiders who couldn't wait for us to get home. In unrelated news I may have superpowers now.”



Matthew: “This is a 100% candid and true picture of what was actually happening.”



Haley: “Art.”



Dr. Towell: "PHENIX All-Star Crew"

Night Shift - 00:00h : 08:00h			
Shift Leader Rusty Towell	DAQ Operator Cecily Towell	Data Monitoring/Gas Matthew Kimball	Voltage Ctrl Haley Stien
			