

WHAT I AM DOING

- Create background radiation simulations for the Phase I detector


Click [HERE](#)

4/11/17

DONE

- Installed Personal BACCARAT
- Got Macro from Ryan
- Looked for vessel dimensions

TO DO

- Permission to access files?
 - Include geometry files in macro
 - Install DAWN visualization? (optional?)
 - Get macro checked
 - Run macro
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4/18/17

DONE

- Found (hopefully) the files for the dimensions of the vessels
- Edited the macro to include them
- Edited farmoutBACCARAT.sh to use the macro
- Started Linux tutorial

TO DO

- Transfer the macro to the server
- Run a test macro (small sample size)
- If errors arise, edit macro until it works
- Run the macro (large sample size)

4/25/17

DONE

- Finished Linux tutorial
- Fixed some issues with running the macro (but ran into some more)

TO DO

- Fix output file problems
- Run a test macro (small sample size)
- If errors arise, edit macro until it works
- Run the macro (large sample size)

SPRING 2017 SEMESTER SUMMARY

WHAT I HAVE LEARNED

- How the LZ Experiment works and the basic geometries of the detectors
 - Does not have much outside use, but it will certainly help with understanding for understanding results (once I get them)
- Basic knowledge on using Linux and writing macros
 - Both will be very useful for the summer, where I will be doing much of what I am doing now, and useful to know in general
- Seeking Help
 - I ran into many walls, so I had to find ways to keep productive while I was stuck in some area

SUMMER GOALS


- Finally run the macro, and make necessary edits
- Be able to interpret my results
- Write more macros (hopefully with visualization)
- Do more tests with other components of the detector vessel
- Move on to other simulations

5/23/17

DONE

- Fixed server issues
- Fixed file permission issues
- Ran first successful job (yet to get results)

TO DO

- Edit macro until I get results that I want
 - Display results (histogram)
 - Run the macro with larger sample size
 - Be able to explain results and effect on experiment
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5/30/17

DONE

- Fixed previous issue (now see output files)
- Now receiving blank output files

TO DO

- Edit macro until I get results that I want
- Display results (histogram)
- Run the macro with larger sample size
- Be able to explain results and effect on detection

6/13/17

DONE

- Read up on radiation in the detector
- Managed (with much help) to resolve many submission script errors

TO DO

- Update submission script to run farmoutBACCARAT
- Display results (histogram)
- Run the macro with larger sample size
- Be able to explain results and effect on detection

6/20/17

DONE

- Solved submission script errors
- Fixing commands in macro
- Set Up / Learning libNEST

TO DO

- Fix macro lines
- Display results (histogram) using libNEST
- Run the macro with larger sample size
- Be able to explain results and effect on detection

6/27/17

DONE

- Learned analysis framework
- Started analysis script
- Went to PSL/ Learned soldering
- Started documentation of cables (names mostly)

TO DO

- Finish analysis script
- Additional cable documentation
- Run the macro with larger sample size
- Be able to explain results and effect on detection