

# WHAT I AM DOING

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- Create background radiation simulations for the Phase I detector

Click [HERE](#)


# 4/11/17

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## 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

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## 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)
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# 4/25/17

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## 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

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- 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

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- 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

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## 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


# 5/30/17

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## 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
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# 6/13/17

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## 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