

SPINFEST 2016

STUDENT INTRODUCTION

Nicole Lewis, University of Michigan

Background

- From Los Angeles
- Got interested in Physics in High School
 - Had a great physics teacher
 - Also interested environmental science
- First learned about high energy physics reading *Death by Black Hole* by Neil Degrasse Tyson

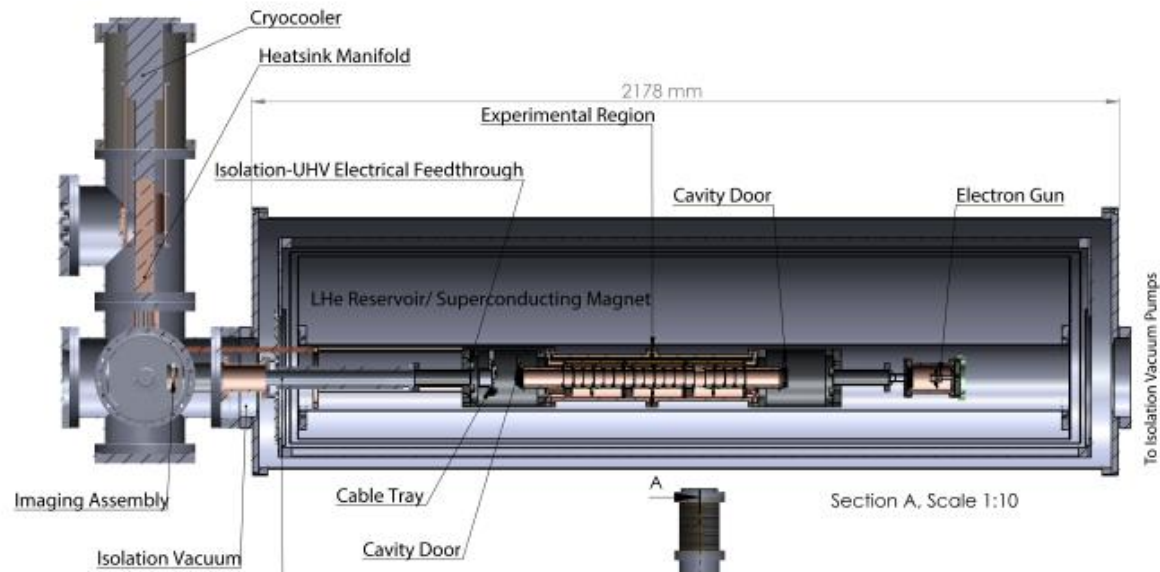
Education

- University of California Berkeley (2011-2015)
 - BA in Physics
 - Minor: Forestry and Natural Resources
- University of Michigan
 - Started PhD in Physics last fall
 - Advisor: Christine Aidala
 - Started with PHENIX officially in May

Undergrad Research

- Worked with Professor Joel Fajans in Plasma Physics
- ALPHA experiment at CERN
 - Goal: stably trap antihydrogen
 - Measure gravitational force on antimatter and CPT violation
- Berkeley Group: CERES Apparatus
 - Similar studies but with electrons plasmas
 - Resonant Cooling
 - Built High Q cavity

Source:
Alex Povilus's Thesis:
*Cyclotron-Cavity Mode
Resonant Cooling in
Single Component
Electron Plasmas*



My Work: Mostly Electronics

- Assisted in data taking and assembly and disassembly of experiment
- Circuit design, simulation, circuit board design, building
 - Learned a lot about National Instruments Software
- Built:
 - Electrode Amplifiers
 - PreAmp
 - Switches
 - SiPM amplifier

Current Research

- Working with Christine Aidala on Single Transverse Asymmetries on Run 15 data at mid-rapidity
 - Starting with direct photon from p-p collisions
 - Possible other topic include: π^0 , η , or jet asymmetries or looking at polarized p-A collisions
- All of these are ways of probing the initial state and don't involve hadronization effects