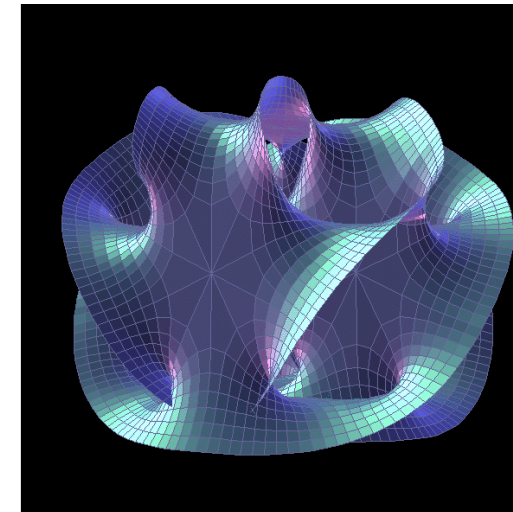
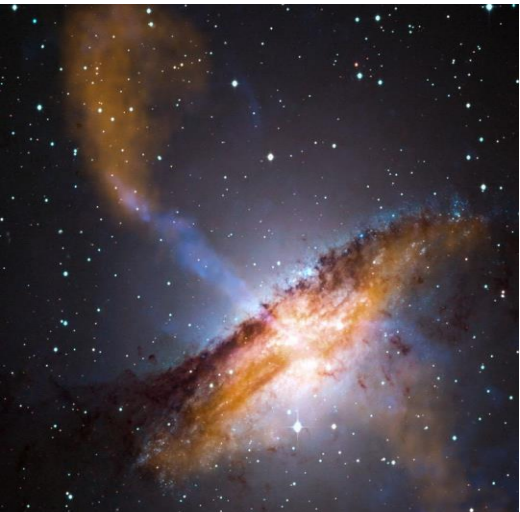


What is Research?

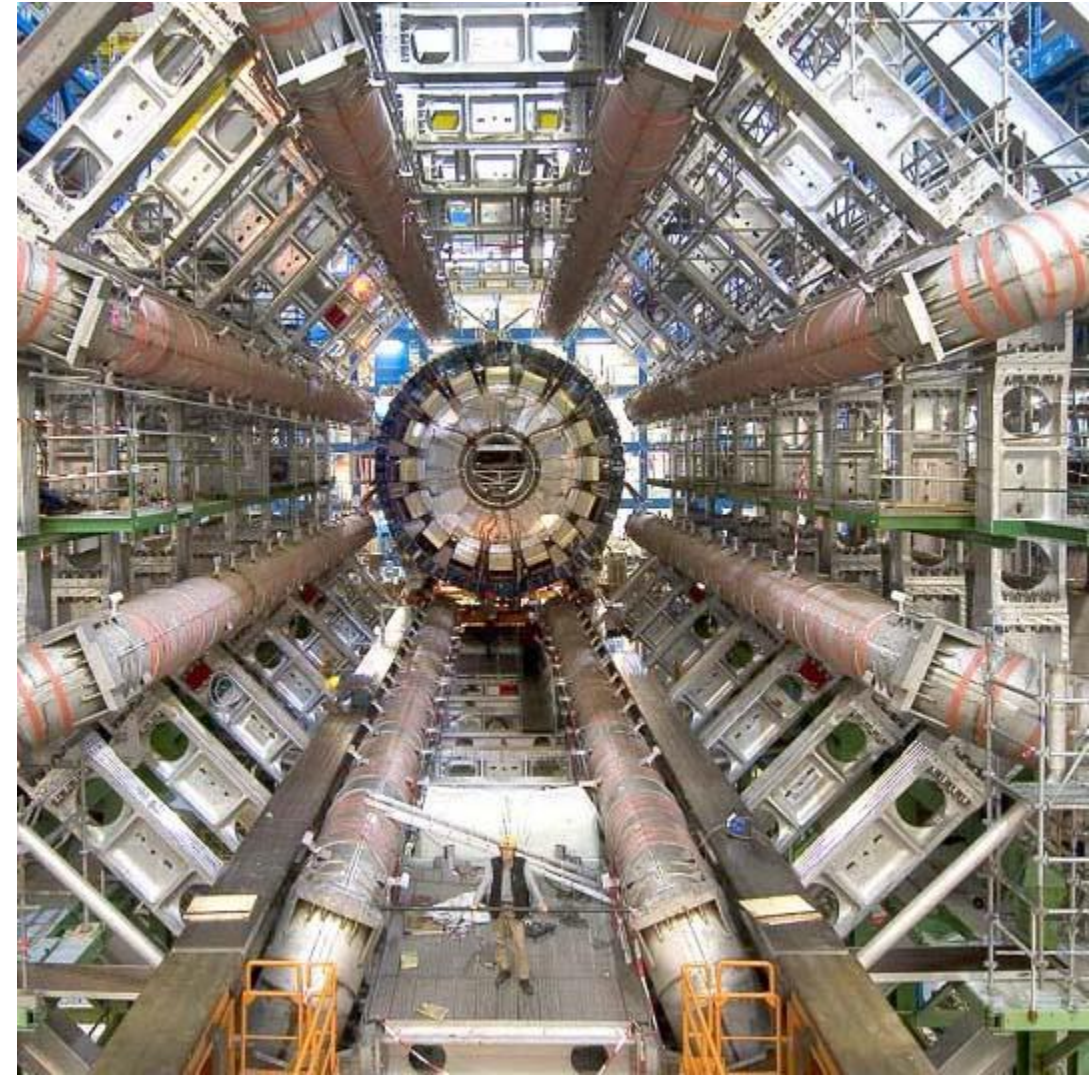
December 4, 2014. 7PM

Event sponsored by Women in Physics

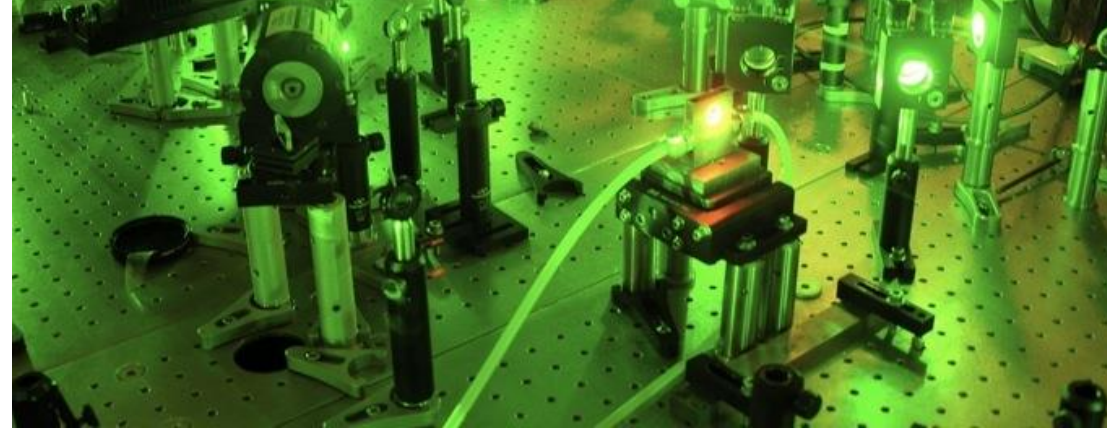


Why do physics research?

- Learning opportunity beyond the classroom
- Helping to create new knowledge
- Chance to be paid for your brain!
- Improve oral and written communication
- Helps you discover your interests
- Prepare for future career (both in physics and other disciplines)



What can you do?



Research on Campus

- Become involved with an on-campus project that interests you
- Develop a close relationship with faculty and graduate students on campus
- Opportunity to do research during the year

Research Experience for Undergraduates (REU)

- Opportunity to meet other scientists at all stages in their careers
- Summer research internship at a different campus
- Often involves some conference or end of summer presentation of work

Research on Campus- How to Apply



- List of subjects that interest you
- Decide what you want to gain from working on a project
- Look into faculty and research webpages to figure out who you might want to work for
- Contact professors with information about you, your background, your interests, and your availability
- <http://www.physics.ucsb.edu/education/undergrad/research>
- Worster Summer Research Fellowship
- Materials Research Lab
- Center for Science and Engineering Partnerships
- Undergraduate Research and Creative Activities (URCA)

REU- How to Apply



- Decide the program(s) you want to apply for, each has own application
- Generally will need to send transcript, letters of recommendation, some description of interest and background
- Applications are typically due between end of December and mid-February
- Official list of REU sites:
http://www.nsf.gov/crssprgm/reu/list_result.jsp?unitid=69
- Science Undergraduate Laboratory Internships (SULI):
<http://science.energy.gov/wdts/suli>
- Caltech SURF website:
https://sfp.caltech.edu/programs/surf/program_description
- NIST SURF website:
<http://www.nist.gov/surf/>

International Research Opportunities

- Summer and study abroad opportunities, generally don't pay for flights but have stipend
- Germany: Research Internships in Science and Engineering (RISE)
<https://www.daad.de/rise/en/>
- Switzerland: University of Michigan- CERN
<https://sites.google.com/a/umich.edu/um-cern-reu/apply-now>



Physics Subfields

- Astrophysics
- High Energy
- Atomic, Molecular, Optical
- Hard Condensed Matter
- Soft Condensed Matter
- Bio-physics
- Quantum Computing

