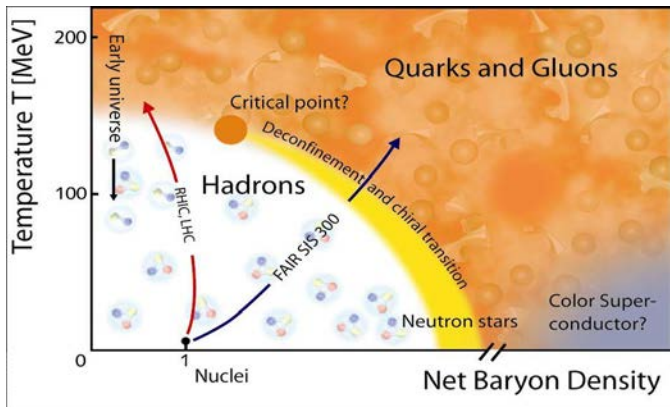


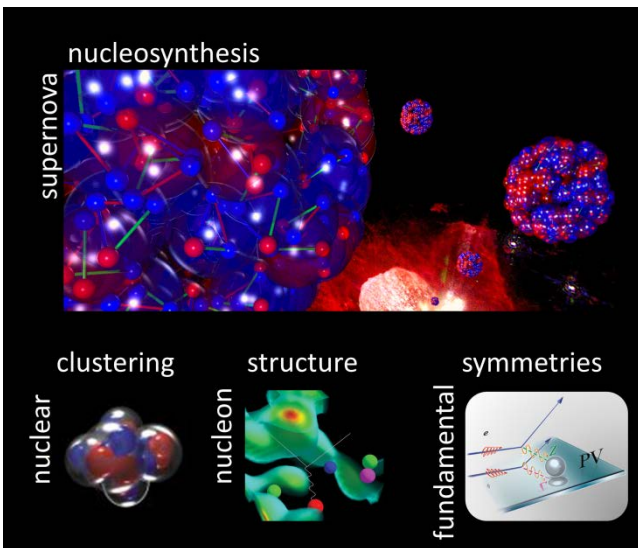
QCD phase diagram



Nuclear Theory

Explore the structure and behavior of strongly interacting matter, help form a quantitative description of nuclei from the properties of Quantum Chromodynamics.

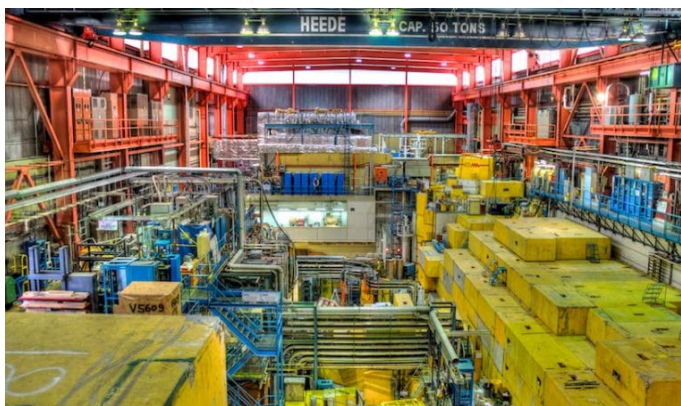
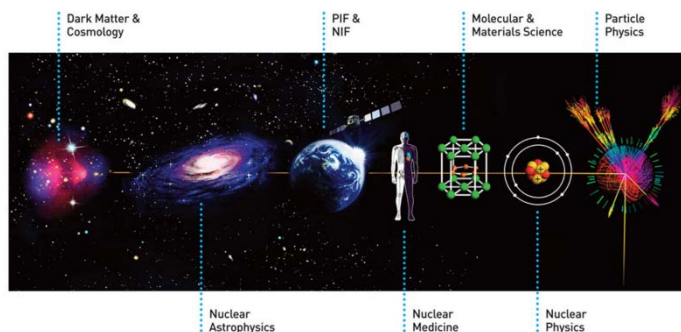
- Lattice QCD
- Relativistic heavy ion theory
- Calculations of nuclear structure
- Chiral Perturbation Theory



TRIUMF

Canada's national laboratory for particle and nuclear physics and accelerator-based science. The ISAC facility at TRIUMF is a world leader in the emerging technology of radioactive ion beams.

- Nuclear Medicine
- Nuclear Physics
- Materials Science
- Particle Physics



TRIUMF's Meson Hall

Examples of exciting study include:

- Radioactive isotope trapping (TITAN and TRINAT)
- Nuclear Astrophysics studies (DRAGON and EMMA)
- The world's most intense source of ultra-cold neutrons (UCN) will allow for a searches of new physics beyond the Standard Model
- ARIEL will permit high-precision studies of nuclear structure



GlueX during tracking chamber installation

Jefferson Lab

The world's leading electron accelerator facility, capable of providing a highly stable, highly polarized electron beam. Now with a maximum beam energy of 12 GeV, Jefferson Lab will make profound contributions to the study of nuclear matter, including:

- Studies of gluonic excitation and quark confinement
- Nuclear and nucleon structure
- Deep exclusive meson production
- Tests of the Standard Model

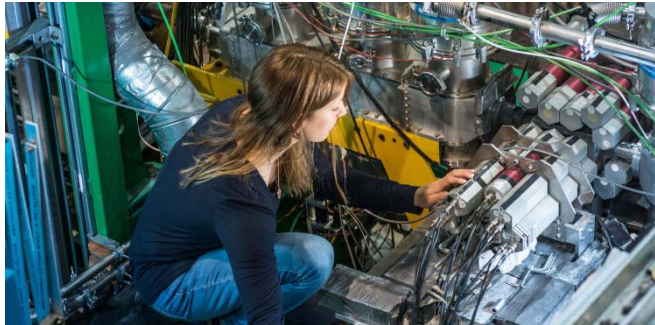


New spectrometers in Jefferson Lab's Hall C

On front page:
 β decay with GRIFFIN and DESCANT detectors



Ryan McFadden, working on betaNMR



Annika Lennarz, examining the BGO array

Nuclear Experiment

Canadian universities have researchers that work in laboratories all over the world, from our own national laboratory, TRIUMF in Vancouver, to the Jefferson Laboratory, Argonne and FRIB facilities in the USA, ALPHA at CERN, Mainz and GSI in Germany, and RIKEN in Japan.

CINP Institutions

Saint Mary's University	University of Winnipeg
Mount Allison University	University of Regina
McGill University	University of Northern British Columbia
University of Guelph	TRIUMF
University of Manitoba	

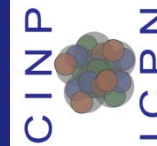
Opportunities for graduate work in nuclear physics

- Gain Valuable Experience with Digital and Analog Electronics
- Do Experiments at National and International Laboratories
- Participate In Experimental Data Collection
- Attend Workshops/Conferences
- Develop Simulation Software
- Analyze Experimental Data
- Construct Detectors
- Develop new theoretical models



CINP student stringing ALPHA-g prototype

Learn more about CINP and Canadian Nuclear Physics opportunities:



Canadian Institute of Nuclear Physics
Institute Canadien de Physique Nucléaire

