



## **Queen's University NSERC Undergraduate Student Research Awards in Physics, Engineering Physics & Astronomy**

Summer research positions in the Department of Physics, Engineering Physics & Astronomy, Queen's University, are available for highly qualified students under the NSERC Undergraduate Summer Research Award program in the following areas:

### **Astronomy and Particle Astrophysics**

Theoretical and observational astronomy, general relativity, cosmology, computational astrophysics, large scale structure of the universe, high energy astrophysics. Experimental research and development for projects underway at the SNOLAB underground facility for astroparticle physics. Current experimental programs looking for students include SNO+, DEAP, SuperCDMS, PICO, NEWS-G, KDK, and MAJORANA (see <https://sno.phy.queensu.ca/group/> for more information). These experiments are exploring properties of fundamental particles, and their impact on the evolution and structure of the universe, and include searches for dark matter, neutrino properties, and supernova explosions. Work is also being conducted to develop theory in the areas of star formation, interstellar medium research, dark matter, galactic and large scale structure, astrophysical searches for fundamental physics, and early universe cosmology.

### **Condensed Matter Physics, Optics, and Engineering & Applied Physics**

Theoretical, computational and experimental research in a wide variety of topics, such as nanoscale electronic and mechanical systems, materials physics, nanophysics, scanning probe microscopy, semiconductor spintronics, magnetic non-destructive evaluation, medical ultrasound imaging, medical physics, ultrafast nonlinear optics, polymer photonic devices, nanophotonics, quantum optics, photonic crystals, chiral photonics, soft condensed matter, complex systems, and biophysics.

**Total monthly stipends for summer research positions, with and without NSERC awards, are as follows:**

Students completing