

DeMeritt Hall

Department of Physics and Astronomy

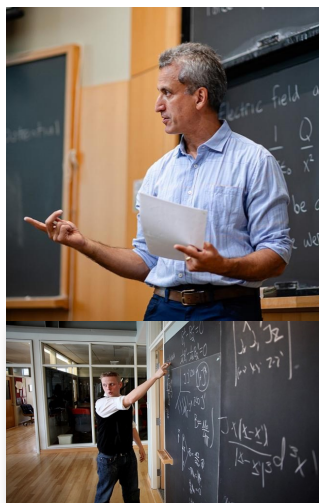
University of New Hampshire



Morse Hall

Overview

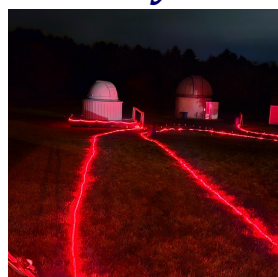
- The UNH Department of Physics has state-of-the-art educational and laboratory facilities with approximately 22 teaching faculty, 12 research faculty, 90 undergraduates, and 60 graduate students
- Our world-class research brings in an unusually large amount of grant funding (20 to 30 million dollars per year), providing many research opportunities for undergraduates, which helps them find jobs and get into top graduate schools.
- We offer three degrees: the **Physics B.S.** provides the most rigorous training in physics; the **Engineering Physics B.S.** enables students to combine physics with the engineering discipline of their choice; the **Physics B.A.** provides flexibility for students going into law, medicine, or teaching.
- Our modernized curriculum introduces all students to quantum computing, with elective offerings in all main areas of physics.
- More information at <https://ceps.unh.edu/physics-astronomy>. Within your personal statement, tell us your story, your ambitions, triumphs and challenges



Interactive Studio Classes



Community Building



For more detailed information about program offerings and requirements:



<https://ceps.unh.edu/physics-astronomy>



physics.chair@unh.edu

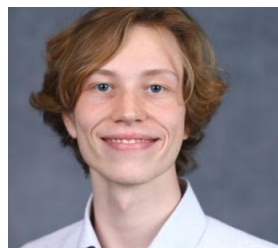
Student Success



Alana Gudinas, '20
NSF Graduate Research
Fellow at Stanford



Tan Dao, '21
Paul & Daisy Soros Fellow
and NSF Graduate Research
Fellow at Harvard



Eben Quenneville, '27
Goldwater Scholar, Paul D. Try
Endowed Scholarship from
American Meteorological Society





DeMeritt Hall



Department of Physics University of New Hampshire

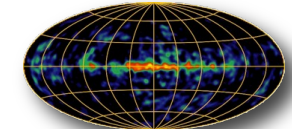
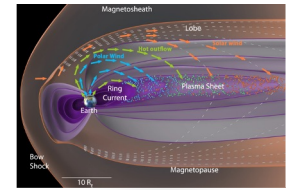
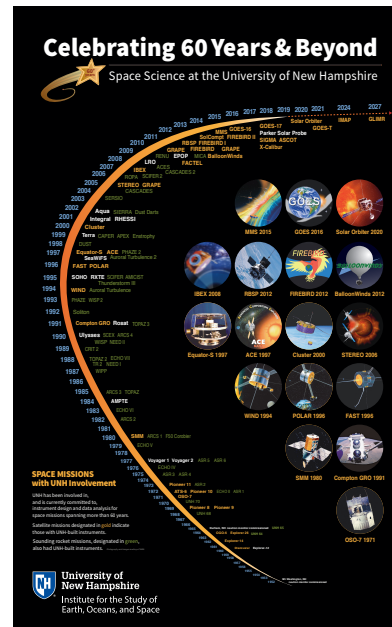


Morse Hall
(Inst. for Earth Oceans and Space)

Research Areas

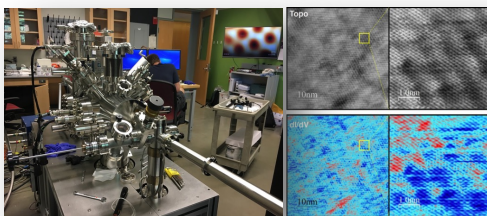
Space Science Physics:

The Space Science Center fosters research and education in all of the space sciences with studies ranging from thunderstorms to the ionosphere, to the Earth's magnetosphere, to the Moon, the Sun, to the local solar system, to the heliosphere, to the local interstellar medium and out to the farthest reaches of the universe. We conduct theoretical modeling and satellite instrument developments to understand the solar-terrestrial radiation environment. High energy astrophysics investigations involve the sensing of energetic astrophysical objects with ground, balloon, and satellite detectors.



Condensed Matter Physics:

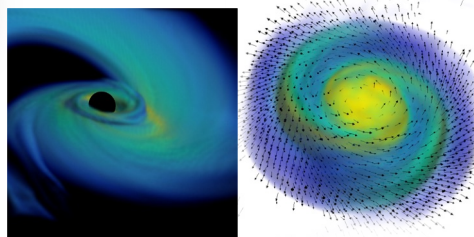
Study the fundamental emergent properties of electrons from their interactions and the associated applications. The groups focus on observing electronic structures of 2D materials and theoretical modeling of magnetic materials



Atomic resolution STM/ STS image of graphene on silicon carbide

Theoretical High Energy and Gravitational Physics:

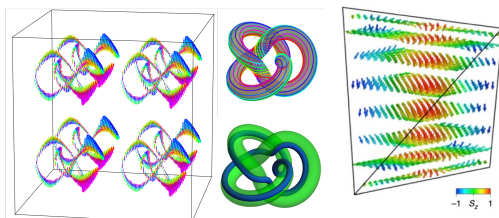
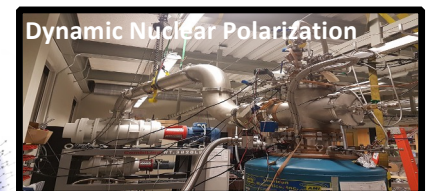
String theory and the geometry of extra dimensions. Black hole physics and holography in modified gravitational theories. Simulation of black hole and neutron star mergers and their corresponding gravitational and electromagnetic signals. Early universe inflationary cosmology and dark matter effects in galaxies.



Simulation of a black hole- neutron star merger and neutron star – neutron star binary merger

Nuclear and Particle Physics:

UNH leads large collaborations in research being performed at Jefferson Lab to conduct basic research of the atom's nucleus using the lab's unique electron accelerator



Model of topological textures in exotic magnetic materials