Considering a career as a Solar Physicist?

A strong physics background is essential. Experience with computer programming, engineering, math, chemistry, astronomy, and astrophysics can also be very beneficial.

To be a full researcher, a PhD is necessary. However, this is not the only way to work for NSO. We have engineers, masters level physicists, entry level positions, business managers, teachers, and people from many other backgrounds.

AK	University of Alaska Fairbanks
AL	University Alabama Huntsville
AZ	Arizona State University
	University of Arizona
CA	University of California Berkeley
	University of California Los Angeles
	University of California Santa Cruz
	University of California San Diego
	University of Southern California
CO	University of Colorado Boulder
DE	University of Delaware
GA	Georgia State University
HI	University of Hawaii, Manoa
KY	Bowling Green State University
MA	Boston University
	Harvard-Smithsonian
MD	Catholic University
	University of Maryland College Park
MI	University of Michigan
MN	University of Minnesota
MT	Montana State University
NH	University of New Hampshire
NJ	New Jersey Institute of Technology
NM	New Mexico State
TX	Rice University
	U of Texas Austin
	University of Texas San Antonio
VA	George Mason University

Disclaimer :
This is not a comprehensive list and is subject to change. Students should investigate current research opportunities before applying to these schools for graduate work.

National Solar Observatory

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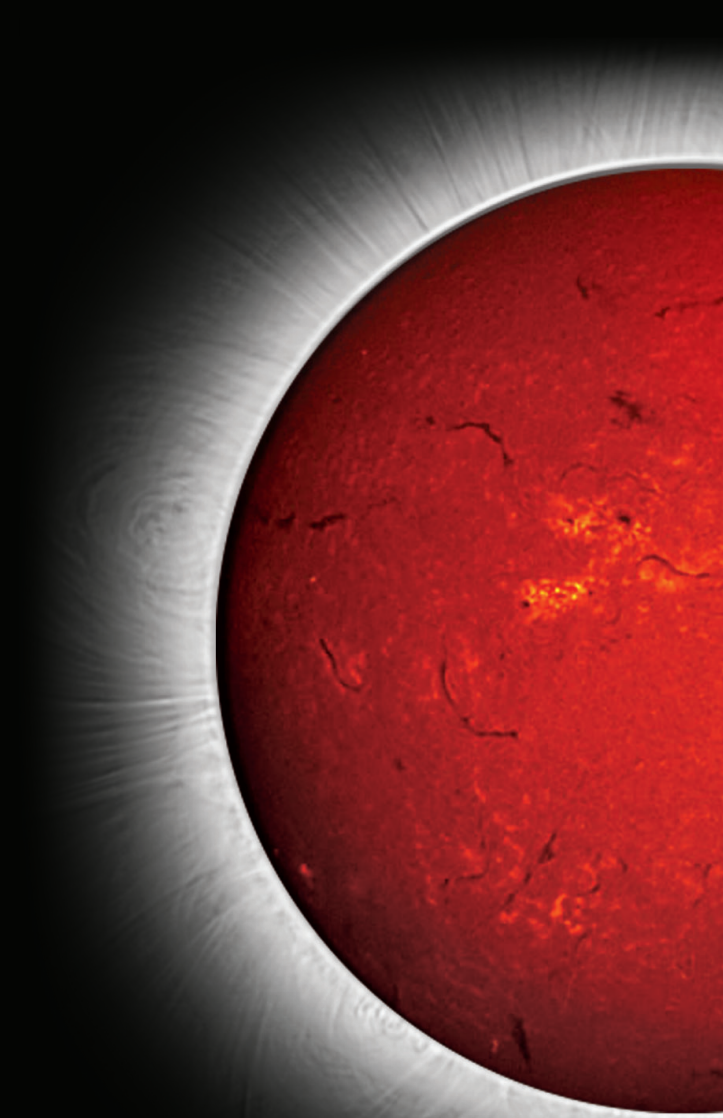
The National Solar Observatory (NSO) is the national center for ground-based solar physics in the United States (www.nso.edu) and is operated by the Association of Universities for Research in Astronomy (AURA) under a cooperative agreement with the National Science Foundation Division of Astronomical Sciences.

The National Science Foundation (NSF) is an independent federal agency created by Congress in 1950 to promote the progress of science. NSF supports basic research and people to create knowledge that transforms the future.



Solar Physics

Which is cooler?

FLUID DYNAMICS

High Energy Physics

Thermal Physics

Particle Physics

PLASMA PHYSICS

ELECTROMAGNETISM

OPTICS

...If you studied solar physics, you wouldn't have to choose!

Studying the sun is important...

Understanding Climate. The energy we receive from the sun changes slightly on scales of milliseconds to billions of years. Understanding the energy input from the sun is an important aspect of climate models and better information will help make these models accurate for greater spans of time.

Space weather. Humans increasingly rely on Earth-orbiting satellites and power systems on the ground. Volatile space weather has the capacity to damage satellites and disrupt power systems. Predicting these events can help reduce damage and prevent havoc.

The sun as a star. There is a lot we would like to know about all the stars in the universe and luckily, we have one in our own backyard. We already know the sun's age, radius and mass. Combining this with measurements of surface processes, high energy events and seismology, we are able to know much more about distant stars than we could by measuring those stars alone.

The sun as a physical laboratory. It's not easy to make and contain large amounts of plasma in a laboratory setting. The sun acts as a natural laboratory for investigating the physics of plasmas, magnetic fields and nuclear reactions.

Solar science is about to get hotter

This is a very exciting time to enter the field of Solar Physics. In the next 3 - 5 years, the field of solar physics will get three cutting-edge observatories that together, will revolutionize our understanding of the Sun.

Daniel K. Inouye Solar Telescope DKIST (National Science Foundation/NSO)

- Cutting edge ground based observatory under construction in Hawai'i.
- Will be seven times more powerful than currently available.
- Completion scheduled for 2019, fully operational 2020.
- Focus on detailed observations of the Sun's magnetic field and dynamic behavior.

Parker Solar Probe (NASA)

- Will fly to within 4 million miles of the Sun.
- Focus on the heating of the Solar Corona and solar wind acceleration.
- Launching in summer 2018 with first entry into the Sun's corona in fall of the same year.

Solar Orbiter (ESA)

- Will fly to within 43 million km of the Sun.
- Focus on measuring local solar wind plasma, fields and waves close to the Sun.
- Launch in 2018 with arrival at the Sun in 2021.