HELIOPHYSICS

2016 Summer School
Explosive Energy Conversions and Particle Acceleration
July 26–August 2, 2016 • Boulder, CO

Deadline: 26 February 2016

Applications are invited for the 2016 Heliophysics Summer School, which will be held in beautiful Boulder, Colorado. We are seeking students and undergraduate level teachers and instructors to join us this coming summer for a unique professional experience. Students and teachers will learn about the exciting science of heliophysics as a broad, coherent discipline that reaches in space from the Earth’s troposphere to the depths of the Sun, and in time from the formation of the solar system to the distant future. At the same time, a goal of the Summer School is for the group of instructors to develop materials from Heliophysics that can be applied in their classes.

The Heliophysics Summer School focuses on the physics of the connections between the Sun, the heliosphere, the magnetosphere, the ionospheres, and the upper atmosphere of the planets. The solar system offers a wide variety of conditions under which the interaction of bodies with a plasma environment can be studied, while exoplanets and Sun-like stars offer an even wider range of perspectives with lessons about our local cosmos from distant past to distant future.

The 2016 Summer School will begin with an overview of the various components composing the Heliophysical system, and review some of the universal physical processes at work throughout the system. It will then focus in on several kinds of explosive events which serve to illustrate these universal processes that occur through the coupled Heliophysical system. The explosive events include solar flares, coronal mass ejections (CMEs) and, geomagnetic storms and substorms. The school will also cover the impacts these and other explosive events might have on infrastructure and people on Earth.

The school will be based on lectures, laboratories, and recitations from world experts, and will draw material from the three textbooks Heliophysics I-IV, published by Cambridge University Press. (Volume IV is currently in press.)

Several undergraduate level teachers along with about 30 students will be selected through a competitive process organized by the UCAR Visiting Scientist Programs. The school lasts for eight days, and each participant receives full travel support for airline tickets, lodging and per diem costs.

Student Application Requirements
• Currently enrolled as a graduate student in any phase of training, or first or second year postdoctoral fellow.
• Major in physics with an emphasis on astrophysics, geophysics, plasma physics, and space physics, or experienced in at least one of these areas.
• Pursuing a career in heliophysics or astrophysics.

SPECIAL OPPORTUNITY FOR TEACHERS

Teacher Application Requirements
• At least three years of teaching experience. (Already having a connection with heliophysics is not a requirement.)
• Currently teaching physics (preferably electricity & magnetism), astronomy/planetary science, or Earth sciences at the upper division undergraduate level.
• Willingness to provide feedback to the Summer School faculty and organizers on the comprehensibility and comprehensiveness of the overall set of lectures and supporting materials.

For additional information on this program and instructions on how to apply, please visit the Heliophysics website at: www.Heliophysics.ucar.edu

For further information, call (303) 497-1605 or e-mail vspapply@ucar.edu

The Living With a Star program of the Heliophysics Division in NASA's Science Mission Directorate sponsors the Summer Schools. The University Corporation for Atmospheric Research (UCAR) Visiting Scientist Programs collaborates with NASA in administering the schools. UCAR is an EEO/AAE who values and encourages diversity in the workplace. Images courtesy of NASA.