

2003 Internship Program for Princeton Undergraduates



The Program in Plasma Science and Technology is pleased to announce an internship program for Princeton University undergraduates. Under this program, funds are available to support a limited number of students working on plasma science and technology research under the guidance of members of the Interdepartmental Committee (see below). An internship may be held during the summer months or the school year.

Studies of plasma science and technology meld several traditional scientific and engineering specialties including fundamental research on plasmas, plasma interactions with materials, and the technologies and economic impact associated with plasma applications. Plasmas are essential to many high-technology applications. One key example is fusion energy, for which the fuel is a high-temperature plasma; fusion-oriented plasma physics experiments are

conducted both on major plasma confinement devices and on smaller, exploratory facilities. Gaseous lasers constitute another important plasma application. X-ray laser research is prominent in the PPST. Lower temperature plasmas are used for a growing number of materials fabrication processes including the etching of complex patterns for micro-electronic and micro-optical components and the deposition of magnetic, polymeric, and catalytic thin-films. Plasmas are important for illumination, microwave generation, chemical synthesis, space propulsion, and advanced-design accelerators for fundamental particle research.

Departments in the program are Astrophysical Sciences, Chemical Engineering, Chemistry, Electrical Engineering, Mechanical and Aerospace Engineering, and Physics. Research facilities and opportunities are at the Princeton Plasma Physics Laboratory and on the main campus.

For further information, contact a member of the IC. To apply for an internship, send a 1-page letter describing your proposed work, a copy of your transcripts, and a letter of support from the IC member to: S.A. Cohen, Princeton Plasma Physics Laboratory, P.O. Box 451, Princeton, NJ 08543, tel. 609-243-3185, email: scohen@pppl.gov. Internships will be filled on a first-come basis. Stipends are based on the standard university pay scale.

INTERDEPARTMENTAL COMMITTEE

Jay B. Benziger, Chemical Engineering

Samuel A. Cohen, Astrophysical Sciences and Plasma Physics

Laboratory, co-chair

Ronald C. Davidson, Astrophysical Sciences

Nathaniel J. Fisch, Astrophysical Sciences

William Happer, Physics

Robert G. Jahn, Mechanical and Aerospace Engineering

Yannis G. Kevrekidis, Chemical Engineering

Herschel A. Rabitz, Chemistry

Giacinto Scoles, Chemistry

James C. Sturm, Electrical Engineering

Szymon Suckewer, Mechanical and Aerospace Engineering
and Plasma Physics Laboratory, co-chair

Sigurd Wagner, Electrical Engineering