



NATIONAL SECURITY AGENCY
CENTRAL SECURITY SERVICE
FORT GEORGE G. MEADE, MARYLAND 20755-6000

THE DIRECTOR'S SUMMER PROGRAM

CRYPTOLOGIC MATHEMATICS FOR EXCEPTIONAL UNDERGRADUATE MATHEMATICIANS

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The Director's Summer Program (DSP) is the National Security Agency's premier outreach to the nation's most outstanding undergraduate mathematics majors. Each summer we invite about two-dozen exceptional students to collaborate with each other and with NSA mathematicians on problems critical to the intelligence gathering and information assurance missions of the agency. Admission to the 12-week program is highly competitive. Applicants should have demonstrated superior mathematical aptitude. A full year of abstract algebra and analysis are recommended. Some computer experience is desirable, particularly with C or C++, and mathematical software packages.

DSP participants work on a wide range of problems in mathematics, cryptology, and communications technology. These problems often involve applications of abstract algebra, geometry, number theory, probability, statistics, combinatorics, graph theory, algorithms, computer science, and analysis. Introductory lectures on modern cryptologic mathematics will be given at the beginning of the summer; at the same time, approximately ten current problems will be presented. Each student will choose one or two as the focus of his or her research. Students are expected to document their work in technical papers, which are internally published at the agency.

Information about the Director's Summer Program is sent to over 300 colleges and universities each year. In addition, students who have scored well in the annual William Lowell Putnam Mathematical Competition are invited to apply. Because of the lengthy processing required, the deadline for applications to be received is 15 October each year. To apply, students should send a resume, at least two letters of recommendation from faculty members familiar with their technical work, and current transcripts. A list of courses, which will have been completed by the end of the academic year, should also be included. All students must be U.S. citizens. Information should be sent to: National Security Agency, ATTN: R1 (DSP) Suite 6515, Fort George G. Meade, MD 20755-6515.

DSP, located at Fort Meade, Maryland, runs from end of May through middle of August. Students are paid a salary commensurate with their educational level. Responsibility for housing finances rest with the student. Students who attend out-of-state schools are eligible for round trip airline ticket to and from school or mileage reimbursement up to cost of government issued airline ticket.

The Director's Summer Program is an extremely rewarding summer experience! For additional information, call Mrs. Jacquie Holmgren, Program Manager, at (301) 688-0983 or send e-mail to math@nsa.gov. For more information about career opportunities at the NSA visit www.nsa.gov.