



**NRL BAA Announcement
#63-09-07**

COMPUTATIONAL MATERIALS SCIENCE

Condensed Matter theory, multiscale computation and inverse material characterization have become increasingly important tools for the understanding of existing, and the development of new materials. The marriage of theoretical formalisms with actual experimental data and the ability to generate theoretical "data" on the computer are important to the Navy's materials efforts.

The Naval Research Laboratory (NRL) is interested in receiving proposals to perform theoretical, computational and experimental studies of materials involving the constitutive behavior and electronic structure and applications, in areas such as mechanical or transport properties, phase transitions, magnetism, superconductivity, and the theory of alloys; or in areas using model Hamiltonian and generalized conservation principles and methods. Proposals should have a focus toward implementing the ideas on high-performance computers.

Although the work in this area is generally unclassified, there is the possibility that aspects of the research may require access to classified documents, and hence, the research projects may from time to time be classified up to the Secret level. It is anticipated that projects may span two years. Proposals for lesser periods and/or stand-alone subsets of the effort, each individually priced, are encouraged.

Address White Papers (WP) to Head, Center for Computational Materials Science, Code 6390, telephone (202) 767-6579, or [e-mail](#) . Allow one month before requesting confirmation of receipt of WP, if confirmation is desired. Substantive contact should not take place prior to evaluation of a WP by NRL. If necessary, NRL will initiate substantive contact.