



**NRL BAA Announcement
#61-15-05**

DEVELOPMENT OF DISTINGUISHING MARKS ON FLEXIBLE SUBSTRATES

The Naval Research Laboratory (NRL) is seeking Research and Development of advanced technologies capable of creating distinguishing marks, optical signatures or patterns on flexible substrates. Applicable substrates include plastics, natural and synthetic fibers, and cloth made from fiber combinations. Technology areas of interest may include but are not limited to:

- 1) Nanomaterials (optical, electromagnetic, nanoparticles, nanofibers, conductive materials)
- 2) Responsive materials where change is initiated by exposure to electromagnetic radiation, thermal change, chemical change or electricity to yield an identifiable response detectable by human sense such as tactile, shape change or visual change
- 3) Materials that produce both linear and non-linear optical effects
- 4) Metamaterials
- 5) Magnetic materials including diamagnetic, paramagnetic and ferromagnetic
- 6) Nanophotonic materials (plasmonic, phononic, excitonic)
- 7) Additive manufacturing technologies
- 8) Micro/nanolithography technologies

Address White Papers (WP) to FlexMarks@nrl.navy.mil. 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.