

Postdoctoral Researcher in Laser propagation and Imaging in adverse conditions – Naval Research Laboratory

We are looking for a postdoctoral researcher with experience in Imaging techniques, propagation of laser beams and scattering mitigation under obscured conditions, such as fog or smoke. Our Advanced Optics Concepts Section at the Naval Research Laboratory (NRL) explores various programs in imaging and laser propagation to include computational imaging, single pixel imaging; orbital angular momentum laser beams or vortex masking and scattering mitigation in laser propagation experiments; and other sensing modalities in visually degraded environments.

Ideal candidate would be experienced in experimentation and modelling laser propagation, optical alignment of imaging systems, characterizing detectors and sensors. Experience working in Vis and mid IR regions, use of spatial light modulators and wavefronts sensors is a plus. Ability to write software to acquire and analyze data in software such as python, Matlab or Labview is also desirable. The candidate will be expected to be able to independently conduct research in these areas, present their results and prepare manuscripts for journal publication.

Key words: computational imaging, single pixel imaging, laser propagation, orbital angular momentum, vortex masks, wavefront sensing, scattering, fog