

IRC61589

Job Title **Postdoc in Gamma-Ray and Neutron Instrumentation for Non-Proliferation**

Organization Name **ISR-1/Space Science & Applications**

The Space Science and Applications group (ISR-1) in the Intelligence and Space Research (ISR) division leads a variety of civilian and defense-related programs sponsored by DOE, DOD, NASA, and other US agencies (space.lanl.gov). In support of these missions, we develop sensors to detect nuclear emissions and measure natural and man-made radiations in space. ISR-1 capabilities extend from mission concept to design and calibration, data analysis, simulation and modeling. ISR division capabilities include engineering design and fabrication, spacecraft integration, ground system support and on-orbit operation.

By providing satellite-borne gamma-ray, X-ray, and neutron detectors to the US government, ISR-1 supports monitoring of the atmosphere and near-Earth space for nuclear detonations. Similarly, our charged-particle detectors support measurement of the natural environment. We have an international reputation in the detection of nuclear phenomenology and in the data analysis, simulation and modeling of the natural environment. ISR-1 is engaged in a number of pioneering basic-science missions, greatly enhancing our research and contributing to our technological base. Our many postdocs and affiliates are key collaborators. These science programs cover several disciplines, including magnetospheric physics, planetary exploration, gamma-ray astrophysics, space situational awareness, and solar-terrestrial interactions. We also seek to supplement our core space programs with innovative research and development projects supporting ground-based nuclear threat reduction and nonproliferation missions.

The group is currently seeking postdoctoral candidates to work on development of advanced X-ray, gamma-ray, and neutron instruments for applications in nuclear security.

Experience in ONE of the following is a plus:

- hardware, data analysis, or modeling of data from past or current projects in the areas of nuclear non-proliferation, counter-proliferation, or treaty monitoring
- design, modeling, simulation, or development of advanced sensing instruments for X-rays, gamma-rays, and neutrons
- work in research accelerator or radiation calibration facilities

The candidates are expected to have a demonstrated ability to work independently and as a member of a team, with good communication skills.

Postdoctoral candidates are required to have a Ph.D. degree, completed within the past five years, or soon to be completed. Appointments are for two years, renewable for a third year. Candidates who have the ability to obtain a DOE "Q"

clearance will have more opportunities. To obtain a clearance, an individual must be at least 18 years of age and be a U.S. citizen.

Postdoctoral Researcher: Competitive salaries are based on the date the PhD degree requirements were completed or the degree was awarded. On the anniversary of these dates, salaries are automatically adjusted to the next higher level, e.g. PhD + 0: \$74,000; PhD + 1: \$75,900, etc. **For more information go to [Postdoc Program](#).**

In addition to applying on-line, interested applicants should send their CV with a cover letter describing research interests and how they can contribute to the group's mission to:

Dr. Alexei V. Klimenko
klimenko@lanl.gov

Apply online through links that can be found on the following page:

<http://www.lanl.gov/org/padgs/adtir/intelligence-space-research/space-science-applications/>

Additional Details:

Position does not require a security clearance. Selected candidates will be subject to drug testing and other pre-employment background checks.

New-Employment Drug Test: The Laboratory requires successful applicants to complete a new-employment drug test and maintains a substance abuse policy that includes random drug testing.

Candidates may be considered for a Director's Postdoc Fellowship and outstanding candidates may be considered for the prestigious Richard P. Feynman, Darleane Christian Hoffman, J. Robert Oppenheimer, or Frederick Reines Distinguished Postdoc Fellowships.

For general information go to [Postdoc Program](#).

Equal Opportunity:

Los Alamos National Laboratory is an equal opportunity employer and supports a diverse and inclusive workforce. All employment practices are

based on qualification and merit, without regards to race, color, national origin, ancestry, religion, age, sex, gender identity, sexual orientation or preference, marital status or spousal affiliation, physical or mental disability, medical conditions, pregnancy, status as a protected veteran, genetic information, or citizenship within the limits imposed by federal laws and regulations. The Laboratory is also committed to making our workplace accessible to individuals with disabilities and will provide reasonable accommodations, upon request, for individuals to participate in the application and hiring process. To request such an accommodation, please send an email to applyhelp@lanl.gov or call 1-505-665-4444 option 1.