

# Openings in Advanced Imaging and Radiography for data-driven plasma and high-energy density experiments

## Los Alamos National Laboratory Los Alamos, NM 87545, USA

Los Alamos National Laboratory (LANL) is a multidisciplinary research institution engaged in cutting-edge science and engineering for DoE Office of Science, DoE NNSA, and other sponsors. The *Advanced Imaging and Radiography* (AIR) is enabled by data science, and driven by the existing and near-future major scientific facilities including synchrotrons such as the Argonne APS, Brookhaven NSLS-II, X-ray free electron lasers such as Stanford LCLS, proton accelerator facilities such as Los Alamos LANSCE, and pulsed laser facilities such as the Livermore National Ignition Facility and Rochester OMEGA. The implosion physics and high speed imaging team in P-4 group is currently seeking one or more outstanding **Postdoctoral Research Associates** to join our team in AIR frontiers. More experienced people may also inquire about more senior scientific and technical positions.

The successful early-career applicant(s) will become a key member of a multi-disciplinary team striving to develop and use AIR instruments to implement data methods such as deep learning for experiments using X-rays and other forms of illumination. The AIR postdoc has excellent promotion and leadership potential towards scientific and technical longevity. The candidate will also have the opportunity to lead high-impact research papers, to present the results at national and international conferences.

Contact for additional information: Dr. Zhehui (Jeph) Wang (email: <a href="mailto:zwang@lanl.gov">zwang@lanl.gov</a>)

### **Requirements:**

- Ph.D. in experimental or computational science or a very closely related discipline, earned within the last 5 years
- Demonstrated ability to carry out independent or collaborative research experiments in AIR, data analysis methods or a closely related discipline, as evidenced by papers submitted to or published in a peer-reviewed journal or equivalent
- Sound academic training in fundamental physics, material science, chemistry, biology or a related discipline
- Fluent use of at least one of the major computer languages, such as C/C++ or Python
- Demonstrated written and oral ability when communicating technically and interpersonally through oral presentations in national and/or international conferences

#### **Desired Qualifications:**

- Excellence in experimental design and instrumentation, particularly imaging instrumentation
- Experience with radiography, PCI and Fourier imaging calculations and code development



- Experience with high-performance computing programs, GPU/TPU and accelerated algorithm development such as deep learning
- Experience with commercial and open-source data analysis, using software tools such as MATLAB or others

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