

Accelerator Physicist Opportunity at the Advanced Photon Source

The Accelerator Systems Division of the Advanced Photon Source (APS) at Argonne National Laboratory is offering a staff position to take a leading technical role in the on-going development of the APS Upgrade. The APS Upgrade includes a number of exciting accelerator developments, such as use of superconducting deflecting cavities for producing picosecond x-ray pulses, provision of superconducting undulators, long straight sections, and significant enhancements to beam stability. We are seeking a highly motivated individual with a strong background in storage ring light sources to take a leading role in the Upgrade.

The purpose of the position is to provide on-going technical oversight of accelerator systems activities related to the Upgrade, in particular regarding integration of new accelerator components with existing, operational systems. This will include optimizing APS the storage ring lattice, using simulation to refine tolerances for the short-pulse x-ray system, and testing the correspondence between models and experiment, among other duties. In addition, it will involve providing technical advice to the APS Upgrade Associate Project Manager for Accelerator Systems and to Accelerator Systems Division management regarding capabilities, operational concerns, and limitations of new systems and components developed for the APS Upgrade. The purpose further includes oversight of preparation of APS Upgrade design reports, physics requirements documents, and other technical documents for the APS Upgrade.

The ideal candidate will meet the following requirements:

- Extensive knowledge of storage ring light sources, including design, commissioning, and operation, covering all major systems including magnets, power supplies, diagnostics, controls, insertion devices, vacuum systems, and rf systems.
- Comprehensive expertise in the use of simulation in the modeling and optimization of accelerator systems.
- Comprehensive expertise in experimental work on accelerator systems, including refinement of models to enhance understanding and predictive ability.
- Demonstrated ability to propose and lead accelerator R&D geared toward light source improvements.
- Good skills in collaborative writing of scientific papers, technical reports, and requirements documents. Knowledge of \LaTeX is a plus.
- Experience working in a large project environment and managing technical personnel.

If interested, please go to www.anl.gov, click on “Careers,” then search for Requisition “320215 ASD”, or scan the QR code below.



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