

## **NOTICE OF VACANCY**

### **Research Scientist – Computational Mechanics Applied Sciences Laboratory (ASL), Spokane Institute for Shock Physics Washington State University**

The Spokane-based Applied Sciences Laboratory (ASL) of the Institute for Shock Physics (ISP) at Washington State University is seeking a Research Scientist to undertake and lead computational modeling and simulation activities related to the mechanical response of materials. We are looking for a creative, self-motivated, entrepreneurial individual who has the ability and interest to address challenging, interdisciplinary problems in a fast paced applied research environment. Preference will be given to individuals who can strengthen and enhance ongoing computational research activities related to mesoscale modeling. Applicants who meet the following requirements will be considered:

- Ph.D. degree in Engineering (Solid Mechanics), Applied Physics (Solids), or a closely related field
- Hands-on experience in computational modeling, including 2D or 3D finite element simulations
- Strong academic and research background related to solid mechanics or mechanics of materials
- Strong ability and interest to obtain external funding from corporate or government sources
- Ability and interest to work effectively in a team environment
- Excellent communication skills, both oral and written
- Good judgment, clear sense of purpose, and accountability
- Experimental background in mechanical properties research is helpful, but not required

The successful candidate will be expected to:

- Establish and lead a vigorous and significant externally funded research program.
- Work with the Director of ISP and the Manager for Research Development at ASL to provide scientific/technical leadership for the modeling/simulations effort.
- Demonstrate proficient skills to understand client goals and technical needs to develop new research programs, and deliver timely solutions. Recruit, support, and guide the work of multidisciplinary scientific/technical staff members, as needed, to ensure high-quality research.
- Identify and pursue applied problems and market opportunities that could be addressed through ASL capabilities and emerging technology.

- Interact with sponsors, including responsibility for presentations and reports.
- Develop mutually beneficial partnerships with industries.
- Work effectively with other ASL scientists.

This is a non-tenure track, research faculty position with a competitive salary that will be commensurate with the achievement and experience of the applicant. The person hired in this position will have significant opportunity and support to build a strong and vibrant research program with a focus on problem solving and applications.

## THE APPLIED SCIENCES LABORATORY

The Applied Sciences Laboratory (ASL) is a self sustaining, contract research organization that conducts a broad range of applied research projects for government agencies and private corporations, including the development of commercial applications.

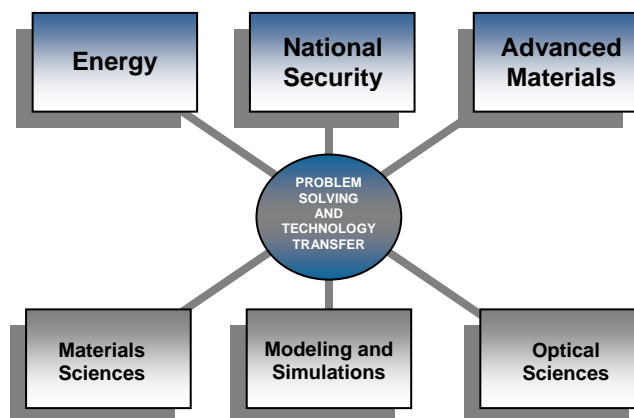


**Vision:** Transforming scientific innovations into practical solutions

**Mission:** Grow a self-sustaining, multidisciplinary contract research organization to link academic research to practical applications

ASL combines the creativity of academic research with the agility and customer focus of private industry. With an emphasis on problem solving and commercial applications, ASL is closely coupled to fundamental research at Washington State University (WSU). As the applied research component of WSU's Institute for Shock Physics, but with a research emphasis well beyond shock physics, ASL builds on more than half a century of scientific excellence.

ASL's focus is on applied research and technology to address needs related to energy, national security, and advanced materials.



The scientific underpinnings for these projects are in materials sciences, computational modeling and simulations, and optical sciences. ASL provides the intellectual and scientific foundation for fostering economic growth through strategic investments in the physical sciences, engineering, and advanced technologies.

Further information about ASL may be found at [www.asl.wsu.edu](http://www.asl.wsu.edu).

## **THE INSTITUTE FOR SHOCK PHYSICS**

Nearly 50 years of research innovations and activities in understanding the dynamic response of materials at Washington State University provide the foundation for the applied research activities in ASL. A multidisciplinary research organization within the College of Sciences, ISP undertakes a broad range of fundamental scientific activities related to understanding condensed matter response under dynamic and static compression. Atomic-to-continuum level understanding is the pervading theme of research activities that emphasize integration of innovative experiments with theoretical and computational advances. Multidisciplinary efforts that combine expertise in Physics, Chemistry, Materials Science, and Mechanical Engineering are underway to address several exciting and challenging scientific problems. In addition to the research faculty and staff within the Institute, students and faculty from several departments within the Colleges of Sciences and Engineering and Architecture participate in the Institute's research projects. State-of-the-art experimental and computational facilities are available for studying physical and chemical phenomena over a large range of length and time scales. Excellent research interactions are in place with the DOE / NNSA National Laboratories. Further information about the Institute is available at [www.shock.wsu.edu](http://www.shock.wsu.edu) .

## **WASHINGTON STATE UNIVERSITY**

Washington State University, one of the two research universities in the state, was founded in 1890 as the state's land-grant institution and is located in Pullman with regional campuses in Spokane, Vancouver and the Tri-Cities. It is a Carnegie Doctoral/Research Extensive University with a strong emphasis on excellence in research and education. Current enrollment is approximately 21,000 undergraduate, graduate, and professional student FTEs, with approximately 5,600 faculty and staff. The University offers approximately 4300 courses in 150 undergraduate, and more than 70 graduate, degree programs. Academically the University is organized into 10 colleges (Agriculture, Human, and Natural Resource Sciences; Business; Education; Engineering and Architecture; Honors; Liberal Arts; Nursing; Pharmacy; Sciences; Veterinary Medicine) and a Graduate School.

## **SPOKANE**

Spokane is the second largest city in Washington. The population is approximately 200,000 and there are over 400,000 citizens in the greater metropolitan area. It is the heart of the Inland Northwest, known for its beautiful outdoor recreational attractions. Spokane is 75 miles from Pullman. Washington State University has a location at the downtown River Point Campus location on the Spokane River with an enrollment of approximately 1,400 students in selected fields. Eastern Washington University, Gonzaga University and Whitworth University are nearby. The largest employers are Fairchild Air Force base, a combination of hospitals and health care providers, and Kaiser Aluminum. Other industries include Agilent Technologies, Alcatel, Avista, Getronics, Itron, Telect, World Wide Packets, General Dynamics/Itronix, F5 Networks, and Honeywell. There is a small but growing biotechnology industry.

## APPLICATIONS

Preference will be given to U.S. citizens or permanent residents. In exceptional cases, applications from individuals who are not permanent residents and are currently in lawful status in the U.S. will be considered. All applicants need to provide citizenship / residency information explicitly in their application material. Applicants should submit a cover letter addressing the required and preferred qualifications for this position, detailed resume, and the names and contact information of three references to:

Ms. Sheila Heyns  
Manager for Administration and Operations  
Institute for Shock Physics  
PO Box 642816  
Washington State University  
Pullman, WA 99164-2816  
Email: [ispjobs@wsu.edu](mailto:ispjobs@wsu.edu) (In the subject line, please ensure that you write "ASL Computational Mechanics")

This position is available now and screening of applicants will begin immediately.

*WASHINGTON STATE UNIVERSITY IS AN EQUAL OPPORTUNITY/ AFFIRMATIVE ACTION EDUCATOR AND EMPLOYER. Members of ethnic minorities, women, special disabled veterans, veterans of the Vietnam-era, recently separated veterans, and other protected veterans, persons of disability and/or persons age 40 and over are encouraged to apply.*

*WSU employs only U.S. citizens and lawfully authorized non-U.S. citizens. All new employees must show employment eligibility verification as required by the U.S. Citizenship and Immigration Services.*

*Washington State University is committed to providing access and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodation in the application process, contact Human Resource Services: 509-335-4521(v), Washington State TDD Relay Service: Voice Callers: 1-800-833-6384; TDD Callers: 1-800-833-6388, 509.-335-1259(f), or [hrs@wsu.edu](mailto:hrs@wsu.edu).*