

## NOTICE OF VACANCY

### Assistant Professor (Tenure Track) *Dynamic Compression of Heterogeneous Materials*



Institute for  
**Shock Physics**  
WASHINGTON STATE UNIVERSITY

#### Description

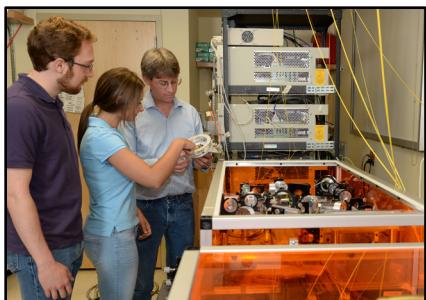
The Institute for Shock Physics (ISP) is a multidisciplinary research organization, within the College of Arts and Sciences (CAS) at Washington State University (WSU), with an emphasis on understanding the response of materials under extreme conditions. The WSU shock physics effort, widely recognized as the academic leader in the field, has a long and distinguished history of research innovations and excellence, and rigorous hands-on training in studying materials response under extreme dynamic compression. Spanning six decades, many pioneering developments in shock wave experiments and theory have been carried out at WSU. One of WSU's most notable achievements in this field has been the outstanding group of scientists who have been educated and trained as graduate students and postdoctoral research associates. These individuals have gone on to become leaders in this field.<sup>1</sup>



ISP Impact Laboratory

WSU is making investments to broaden and enhance the Institute's unique and eminent national role well into the future and has established a new tenure-track faculty position in the Institute for Shock Physics (ISP) located in Pullman, WA. **We are seeking to hire an outstanding experimentalist in the area of Dynamic Compression of Heterogeneous Materials at the Assistant Professor Rank.** In exceptional cases, a higher rank may be considered. The heterogeneous materials of interest may be broadly described as composites, engineered materials, materials with architecture, additively manufactured structures, granular materials, or cellular foams – in contrast to bulk, homogeneous materials.

Candidates from a range of scientific/engineering disciplines (Solid Mechanics, Materials Science, and Solid State Physics) will be considered, provided they have a demonstrated record of creativity and excellence in research related to the mechanical response of materials, and the interest in and ability to examine the response of heterogeneous materials to dynamic loading.



The individual hired will be expected to develop a strong externally funded research program, and teach undergraduate and graduate courses in a relevant academic discipline. This is a permanent full-time, academic year (9 month), tenure-track position in the Institute for Shock Physics with the possibility of a joint appointment or affiliation with a relevant academic department at WSU. Additionally, there exist excellent opportunities for collaborations with scientists at the DOE/NNSA and DoD Laboratories.

<sup>1</sup> Seven out of fifteen awards of the American Physical Society's George E. Duvall Shock Compression Science Award have gone to WSU graduates and/or faculty members to date.

([aps.org/programs/honors/awards/shock.cfm](http://aps.org/programs/honors/awards/shock.cfm))

We are seeking an outstanding experimentalist with a strong record of research and scholarship in dynamic compression science, the ability to define and lead new research thrusts, the ability to lead multidisciplinary research projects and guide others, and a strong interest in teaching.

Responsibilities include:

- Develop an externally supported, independent research program related to the dynamic compression of heterogeneous materials.
- Train and mentor graduate students and post-doctoral research associates.
- Publish in peer-reviewed journals, including high-impact journals.
- Teach undergraduate and graduate courses in the relevant academic department related to the faculty member's discipline.
- Disseminate results and findings at national and international venues, such as conferences, meetings, and colloquia – invited and contributed presentations.
- Engage in activities, both internal and external to WSU, to enhance the scientific impact and stature of the ISP, specifically by conducting state-of-the-art research and by fostering multi-disciplinary research collaborations within and outside WSU.

#### **Required Qualifications**

***Only applicants who are currently in the U.S.*** and meet the following qualifications will be considered for this position:

- PhD in, Solid Mechanics, Materials Science, Solid State Physics, or a relevant academic discipline by the hire date.
- Strong research credentials in research related to the mechanical response of materials, as demonstrated by significant peer reviewed publications.
- Demonstrated leadership potential, and the ability to develop and manage an independent research program.
- Demonstrated expertise and interest in the study of heterogeneous materials.
- A strong record of research and scholarship; the ability to define and guide new research thrusts; the ability to guide multidisciplinary research projects, as appropriate; a strong interest in teaching, and the requisite scientific stature for the position.
- The ability and expertise to guide successfully the research activities of students and postdoctoral research associates.
- Personal attributes should include excellent communication skills and critical thinking, sound judgment, high levels of creativity and energy, and the ability to inspire others.

#### **Application Process**

To apply, submit a cover letter addressing the required qualifications; detailed curriculum vitae; a description of research accomplishments and research plans; a teaching statement, and contact information for five professional references.

Please upload your materials online at the WSU recruitment website: <https://www.wsujobs.com/postings>.

Applications will be considered until the position is filled. Please contact Ms. Sheila Heyns with inquiries regarding this position ([ispjobs@wsu.edu](mailto:ispjobs@wsu.edu), 509-335-1861).

**Additional information about the Institute for Shock Physics and Washington State University follows:**

### **The Institute for Shock Physics**

The Institute has ongoing research activities at the following three locations:

- *Institute for Shock Physics - Pullman, WA:* Combining research innovations and rigorous education ([shock.wsu.edu](http://shock.wsu.edu))
- *Dynamic Compression Sector - Argonne, IL:* Frontier of dynamic compression science (first-of-a-kind worldwide user facility) located at the Advanced Photon Source, Argonne National Laboratory ([dcs-aps.wsu.edu](http://dcs-aps.wsu.edu))
- *Applied Sciences Laboratory - Spokane, WA:* Transforming science into practical solutions ([asl.wsu.edu](http://asl.wsu.edu))



*Shock Physics Building, Pullman, WA*

### **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. Due to its strong emphasis on excellence in research and education, the Carnegie Classification™ has designated WSU as RU/VH: Research Universities (very high research activity). Current enrollment is approximately 29,686 undergraduate, graduate, and professional students. The University offers more than 200 fields of study, with 90 majors for undergraduates, 76 master's degree programs, 64 doctoral degree programs, and 3 professional degree programs. Academically, the University is organized into 11 colleges (Agriculture, Human, and Natural Resource Sciences; Arts and Sciences; Business; Communication; Education; Engineering and Architecture; Honors; Medical Sciences, Nursing; Pharmacy; Veterinary Medicine) and a Graduate School. WSU has established a medical school with preliminary accreditation received in Fall 2016. For more information, please visit [www.wsu.edu](http://www.wsu.edu).



*Washington State University*

*WSU is an EO/AA Educator and Employer.*