

**Institute of Fundamental Technological Research  
Polish Academy of Sciences in Warsaw, Poland  
announces a competition for the position of assistant professor  
in Division for Strength of Materials**

**Recruitment No: BSP/DSP/110-39/2021**

**Position: Assistant Professor, full-time job**

**Deadline for applications: March 26<sup>th</sup>, 2021**

**Key words: solid mechanics, damage mechanics, multiscale constitutive modelling, radiation induced damage, numerical analysis**

**Objectives:**

- Multiscale constitutive modeling of damage initiation and evolution mechanisms in heterogeneous materials subjected to irradiation, complex loads (proportional and nonproportional paths) and various temperature conditions.
- Development of effective calculation schemes for modeling the evolution of mechanically and radiation induced nano and micro-damage fields under the complex loads for various temperature ranges.
- Theoretical modeling of creep based on physical mechanisms in irradiated and unirradiated materials subjected to various temperature conditions.
- Study the influence of the nano \ micro-damage field on the macrocrack propagation rate
- Atomic scale study of point defects migration, interaction of moving dislocations, cavities and dislocation loops.

**Requirements:**

- PhD in science
- experience in scientific research, documented by publications journal is in the master list of Web of Science (WoS) journals reported in journals citation report (JCR)
- experience in numerical computations (C/Fortran, Lammmps, Matlab)
- good knowledge and experienced in solid-state physics, mechanics of materials, multiscale constitutive modeling modelowania wieloskalowego including microdamage modeling
- documented experience in modeling the damage evolution and cracks propagation
- motivation, commitment, independent thinking and innovation in research
- team work skills
- Fluent English skills in speaking and writing.
- fulfillment of the requirements adopted at the IPPT PAN when employed in scientific positions [https://www.ippt.pan.pl/attachments/rada-naukowa/2019-02-28uchwala\\_zatrudnianie\\_zasady.pdf](https://www.ippt.pan.pl/attachments/rada-naukowa/2019-02-28uchwala_zatrudnianie_zasady.pdf)

**Required documents:**

- formal application letter to the Director of the Institute
- scientific CV with the publication list, citation number and H index
- copy of PhD diploma
- motivation letter with a proposed research plan
- signed statement: "I agree to the processing of personal data contained in my job offer for the needs necessary to carry out the recruitment process conducted by IPPT PAN, with headquarters in Warsaw, ul. A. Pawińskiego 5B, according to art. 13 secs. 1 and 2 of Regulation (EU) 2016/679 of the Parliament and of the Council of 27 April 2016 on the protection of

individuals with regard to the processing of personal data and the free movement of such data and the repeal of Directive 95/46 / EC (RODO).

**Applications** should be sent to:

HR Office

e-mail: [konkursy.ippt@ippt.pan.pl](mailto:konkursy.ippt@ippt.pan.pl)

and to the Head of the Department of Experimental Mechanics, Professor Zbigniew L. Kowalewski,

e-mail: [zkowalew@ippt.pan.pl](mailto:zkowalew@ippt.pan.pl), who also provides additional information on request.

Please refer to the Recruitment Number [BSP/DSP/110-39/2021](#) in the application.