

Director
of IT4Innovations National Supercomputing Center
VSB – Technical University of Ostrava
announces a selection procedure for the post of
Postdoc
Modelling for Nanotechnologies Lab

The position is suitable for both women and men.

A 2 years Post-doc position (with possibility to be prolonged) at the IT4Innovations, in the Material Design group of Dr. Dominik Legut within the Modeling of Nanotechnology Lab, is open to applicants for the SPIN DYNAMICAL CALCULATIONS of the topics of Czech Science Foundation's project No. 25-14529L - RE-free magnetoelastic materials for efficient and environmentally friendly cooling" in collaboration with Polish experimental partner (Institute of Molecular Physics of the Polish Academy of Sciences, Poznan) and other collaborations with experimental and theoretical groups from Czech Republic, and abroad (EU, USA, China).

Activity description:

- Conduct theoretical scientific investigations focused on spin dynamics
- Perform numerical simulations to study:
 - ultrafast magnetization phenomena,
 - interactions with surface acoustic waves,
 - propagation of sound waves in the presence of a magnetic field,
 - and other related physical effects.
- Develop and refine research questions within the project's thematic scope,
- Have substantial freedom to reformulate specific project aims,
- Generate and pursue original, creative research ideas as part of the postdoctoral work.

Full time equivalent:	full-time employment
Type of job contract:	fixed-term employment
Expected start of employment:	1. 7. 2026 or as agreed

We require:

- Ph.D. (or soon be defended) in physics, chemistry, materials science, or a related field,
- good theoretical background in the field of magnetic materials,
- excellent command of written and spoken English,
- proficiency in Linux environment, advanced data manipulation (e. g. python, perl, etc.) intermediate/advanced programming skills,
- experience in spin and molecular dynamics using such atomistic simulators as VAMPIRE, UppsASD, LAMMPS with SPIN package, mumax3 or similar (ab initio methods would be a strong advantage).

We offer:

- work in a promising organization,
- salary evaluation according project conditions and candidate's experience,
- modern laboratory and classroom facilities,

- opportunity to participate in excellent research team,
- possibility of further education,
- 6 weeks of holidays,
- flexible working hours,
- university kindergarten,
- contribution option to pension plan,
- company catering in the canteen,
- MultiSport card,
- other employee benefits according to the employer's offer.

Your personal data will be processed to the extent necessary for the implementation of the selection procedure in accordance with EU Regulation 2016/679.

<https://www.vsb.cz/export/sites/vsb/en/.content/files/Informace-pro-uchazece-o-zamestnani-AJ.pdf>

The application form substantiated with a letter of motivation and CV should be sent electronically to the email address: petra.brozova@vsb.cz **until 19. 4. 2026**.

In the subject of the email, please state "Open Call for the position of the Postdoc for NANO".