



PhD seminary 2025

IEP SAS



Thursday, June 19, 2025

Aula, Watsonova 47, Košice

8:30 – 8:45 **Opening and actual information about PhD study**

8:45 – 9:55 **1st year:**

- 8:45 – 8:55** **Muhammad Faisal ASHRAF** (CMP)
Substitutional compounds of novel multiferroic functional materials with distorted perovskite structure
- 8:55 – 9:05** **Tomáš BÍRÓ** (BP)
Amyloid paradigm: From pathological structures to functional bionanomaterials
- 9:05 – 9:15** **Valentín JEDINÁK** (AM)
Multifunctional magnetic nanomaterials for use in medicine
- 9:15 – 9:25** **Izaz KHAN** (CMP)
The effect of oxygen content on the functionality of RMnO_3 materials with a perovskite structure
- 9:25 – 9:35** **Silvia KOSTÁROVÁ** (NP)
Study of space weather influence on Earth's interface to space
- 9:35 – 9:45** **Yevheni PETRENKO** (CMP)
Calorimetry of superconductors
- 9:45 – 9:55** **Paula PILLÁROVÁ** (AM)
Nanomaterials for medical application – functionalization and physicochemical characterization of magnetic nanoparticles based on iron oxides

9:55 – 10:10 **2nd year:**

- 9:55 – 10:10** **Hanan KAREEM ABDUL** (BP)
Misfolding proteins in amyloid diseases and their prevention/therapy

10:10 – 10:30 **Coffee break**

10:30 – 11:00 **3rd year:**

- 10:30 – 10:45** **Viktória FEDOROVÁ** (BP)
Structural, functional and dynamic features of protein amyloid structures
- 10:45 – 11:00** **Ravneet KAUR** (AM)
Study of the atomic structure of materials with a high degree of disorder

11:00 – 12:15 **4th year:**

- 11:00 – 11:15** **Kamil GOLIAŠ** (CMP)
Classical to quantum transitions in mechanical resonators
- 11:15 – 11:30** **Filip KOŠUTH** (CMP)
Point-contact spectroscopy of noncentrosymmetric superconductors and superconductive high-entropy alloys
- 11:30 – 11:45** **Dmytro MIAKOTA** (PEAM)
Self-organization in nanocomposites based on liquid crystals
- 11:45 – 12:00** **Oleksandr PODOPRYHORA** (CMP)
Superfluid $^3\text{He-B}$ as a model system for Q-bits
- 12:00 – 12:15** **Kristina ZOLOCHEVSKA** (PEAM)
Biomedical and biotechnological applications of magnetic nanoparticles

12:30 Short session of supervisors, guarantees and members of Scientific Council IEP SAS

Explanatory notes:

- AM - Advanced Materials (FS UPJS, guarantee: I. Škorvánek)
- BP - Biophysics (FS UPJS, guarantee: Z. Gažová)
- CMP - Condensed Matter Physics (FS UPJS, guarantee: P. Samuely)
- NP - Nuclear Physics (FS UPJS, guarantee: I. Králik)
- PEAM - Physical Engineering of Advanced Materials (FEI TUKE, guarantee: S. Gabáni)