



# PhD seminar 2022

## IEP SAS

Thursday, June 23, 2022

Aula, Watsonova 47, Košice



### 8:00 – 8:15 Opening and actual information about PhD study

8:15 – 8:30 **Marek Kuzmiak** (PEAM, 3<sup>rd</sup> year)  
*Superconductivity in strongly disordered systems*

### 8:30 – 9:30 1<sup>st</sup> year:

8:30 – 8:40 **Kamil Golias** (CMP)  
*Classical to quantum crossover in mechanical resonators*

8:40 – 8:50 **Filip Košuth** (CMP)  
*Study of induced superconductivity in topological materials*

8:50 – 9:00 **Dmytro Miakota** (PEAM)  
*Memory effect in 5CB liquid crystal based composites*

9:00 – 9:10 **Oľga Parmar** (BP)  
*The influence of different interaction partners on the amyloid aggregation of proteins*

9:10 – 9:20 **Radka Sobotová** (M)  
*Synthesis and physicochemical characterization of nanomaterials based on iron oxides for medical applications*

9:20 – 9:30 **Kristina Zolochovska** (PEAM)  
*Biomedical and biotechnological applications of magnetic nanoparticles (including magnetoferritin)*

### 9:30 – 10:00 Coffee break

### 10:00 – 10:30 2<sup>nd</sup> year:

10:00 – 10:15 **Július Bačkai** (PEAM)  
*Angle-resolved magnetoresistance in metallic quantum magnet  $TmB_4$*

10:15 – 10:30 **Oleksandr Podopryhora** (CMP)  
*Superfluid  $^3He-B$  as a model system for Q-bits*

### 10:30 – 11:15 3<sup>rd</sup> year:

10:30 – 10:45 **Maksym Karpets** (PEAM)  
*Impact of magnetic and electric field on structure of magnetic fluids*

10:45 – 11:00 **Limpat Nulandaya** (AM)  
 *$Ni_2FeGa$ : Master Alloy and Microwire*

**11:00 – 11:15 Barbora Borovská (BP)**

*Formation and inhibition of self-assembly of protein amyloid structures  
- impact on amyloid diseases*

**11:15 – 11:30 4<sup>th</sup> year:**

**11:15 – 11:30 Martin Kovalik (M)**

*Colloidal stability and chemical resistance of doped manganites*

**11:30 Short session of supervisors, guarantees and members of Scientific Council IEP SAS**

Explanatory notes:

AM - Advanced Materials (FS UPJŠ, guarantee: I. Škorvánek)

BP - Biophysics (FS UPJŠ, guarantee: A. Musatov)

CMP - Condensed Matter Physics (FS UPJŠ, guarantee: P. Samuely)

M - Materials (FMMR TUKE, guarantee: M. Mihalik)

PEAM - Physical Engineering of Advanced Materials (FEI TUKE, guarantee: S. Gabáni)