

SEMINAR ÚFKL – KŘTINY 2023

Date: 23. 5. 2023

9.00 - 9.05 Introduction (D. Munzar)

Section I

9:05 - 9:30 Václav Holý Organic perovskites - first results

9:30 - 9:45 Mojmír Meduňa The Radon transform as a tool in reciprocal-space

9:45 - 10:00 Martin Podhorský Structural defects in microcrystalline materials

10:00 - 10:15 Dušan Hemzal Surface capabilities of Raman spectroscopy in detection of (bio)molecules

10:15 - 10:30 Hoa Hong Nguyen Origin of Ferromagnetism in Semiconducting Oxides: Confinement Effects or Surface related Magnetism?

10:30 - 10:50 Martin Friák Ab initio calculations of surface-related magnetic states in TiO₂

10:50 - 11:35 *Coffee break*

Section II

11:35 - 12:05 Michal Kiaba Observation of Mermin-Wagner behaviour in LaFeO₃/SrTiO₃ superlattices

12:05 - 12:15 Vojtěch Kliner Exchange bias on the LaFeO₃/LaSrMnO₃ interface deposited on SrTiO₃ (110)

12:15 - 12:25 Jan Klimek Pulsed Laser Deposition of thin films of ferromagnetic oxides and investigation of their magnetic properties

12:25 - 12:45 Matej Červeň/
Marek Duchañ Study of optical response of ferromagnetic manganese oxides

12:45 - 13:00 Petr Klenovský Type-I to type-II band alignment switching for (In,Ga)(As,Sb)/GaAs/GaP quantum dots overgrown by a thin GaSb capping

13:00 - 14:15 *Lunch*

Section III

14:15 - 14:25	Jiří Chaloupka	Microscopic understanding of magnetism in SrRu2O6 part1: Strong coupling perspective
14:25 - 14:40	Diana Csontosová	Microscopic understanding of magnetism in SrRu2O6 part2: Dynamical Mean-Field Theory
14:40 - 14:50	Jiří Chaloupka	Spin polaron formation in a d4 soft-spin magnet part 1: Underlying concepts
14:50 - 15:05	Jan Revenda	Spin polaron formation in a d4 soft-spin magnet part 2: Self-consistent Born approximation
15:05 - 15:25	Dominik Munzar	Infrared response of cuprate ladder compounds
15:25 - 15:40	Petr Adamus	Phonon anomalies in SCCO
15:40 - 16:00	Ivana Miháliková	Application of quantum computers in materials science
16.00 - 16.45	<i>Coffee Break</i>	

Section IV

16:45 - 16:55	Devanshu Varshney	Growth of organic semiconductors on graphene: from the first monolayer formation to molecular multilayers (GOSG)
16:55 - 17:05	Lakshmi Sajeev	Ferroelectric topological insulators
17:05 - 17:20	Josef Humlíček	SiC-Kabra
17:20 - 17:35	Ondřej Caha	Analysis of silicon carbide using X-ray methods
17:35 - 17:55	Petr Mikulík/ Karel Kubíček	It's all about Microscopy – New study program
17:55 - 18:25	Dominik Munzar	<i>Department issues</i>
18:30 - 21:30	<i>Banquet, free program</i>	