# XI Conference of Young Scientists "Problems of Theoretical Physics"

## **Monday 21 December 2020**

#### **Condensed Matter Physics (14:30-17:40)**

time	[id] title	presenter
14:30	[48] Thermoelectricity: from the iron arc of the epoch of Alessandro Volta to ferrofluids today	Prof. VARLAMOV, Andrey
15:15	[2] Coulomb and vibration effects in spin-polarized current through a single-molecule transistor	Dr SHKOP, Anastasiia
15:35	[6] Bending-induced flexoelectric polarization and conductivity of low-dimensional transition metal dichalcogenides	Ms SHEVLIAKOVA, Hanna
15:55	[7] Influence of Mismatch Strain on Electrocaloric Properties of Core-Shell Ferroelectric Nanoparticles	Ms SHEVLIAKOVA, Hanna
16:15	Coffee break	
16:40	[23] Occupation-conservation transition in a quantum two-level system	Mr IVAKHNENKO, Oleh
17:00	[25] Resonant interferometry and spectroscopy of a double-quantum-dot system	Mr RYZHOV, Artem
17:20	[18] Flat bands in quasi-one-dimensional Josephson junction arrays	BUKATOVA, Daryna

## Wednesday 23 December 2020

### Condensed Matter Physics (09:00-12:00)

time	[id] title	presenter
09:00	[8] Probing and manipulating valley coherence of dark excitons in WSe\$_2\$ monolayer	Dr SLOBODENIUK, Artur
09:40	[33] Surface waves on resonant anisotropic metasurfaces	Dr YERMAKOV, Oleh
10:00	[38] Collective oscillations of plasma and order parameter in graphene counterflow superconductors.	Mr HERMASH, Kostiantyn
	[36] Formation of regular domain structures with small period in ferroelectrics during phase transitions	MAZUR, Olga
10:40	[19] Circular stripe domains in a vertically stacked magnetic heterostructures	ZAIETS, Oleksandr
11:00	Coffee break	
11:20	[30] Magnetic field-induced phase transitions in antiferromagnetic rings	BORYSENKO, Yelyzaveta A.
11:40	[3] Size Characteristics for the Hyperbranched Polymers	HAYDUKIVSKA, Khristine