PHD THESIS FINAL REVIEWS
(2023)

PhD Program	Date	Preliminary Time	PhD Student	Supervisor(s)	Thesis Title	Room in campus & Online link
CDSE	26 OCT '23	15:30	Marshakov Evgeny	Alexey Frolov	Polar Codes for Single and Multi-User Channels	E-R3-2008
CDSE	23 OCT '23	10:00	Koshelev Iaroslav	Andrzej Cichocki Stamatios Lefkimmiatis	Learning Recurrent Neural Networks for Image Reconstruction using Implicit Differentiation	E-R3-2008
CDSE	23 OCT '23	11:30	Ermilov Dmitrii	Andrzej Cichocki	Efficent Deep Learning using Tensor Networks	E-R3-2008
CDSE	23 OCT '23	14:00	Shcherbak Aleksei	Andrey Somov	Diagnosis of the Human Neurological Movement Disorders Based on the Analysis of Heterogeneous Data Using ML Methods	E-R3-2008
Materials Science and Engineering	20 OCT '23	10:40	Mazhnik Efim	Artem Oganov	Application of graph neural networks for predicting mechanical properties of crystalline materials	E-R3-2008
Materials Science and Engineering	20 OCT '23	13:20	Kislenko Vitaliy	Victoria Nikitina Kislenko Sergey	Electron Transfer Process Modeling in Electrocatalytic Reactions beyond the Computational Hydrogen Electrode Model	E-R3-2008
Mathematics and Mechanics	17 OCT '23	11:10	Biltu Mahato	Sergey Abaimov Stepan Lomov	Multifunctional Interleaves for Composite Laminate	E-R2-2014
Mathematics and Mechanics	17 OCT '23	12:30	Aleksei Shiverskii	Sergey Abaimov	Improving Interlaminar Fracture Strength of Composite Laminate during Out-of-Autoclave Cure	E-R2-2014
Materials Science and Engineering	13 OCT '23	10:40	Polina Morozova	Artem Abakumov Stanislav Fedotov	Research and development of new Prussian blue cathode materials for potassium-ion batteries	E-R3-2009
Materials Science and Engineering	13 OCT '23	12:10	Elena Orlova	Artem Abakumov	High-energy-density cathode materials for Li-ion batteries based on modified layered transition metal oxides Ni-rich NMC	E-R3-2009
Materials Science and Engineering	13 OCT '23	13:40	Eugene Nazarov	Evgeniy Antipov Stanislav Fedotov	Three-dimensional modification of triphylite-type cathode materials for high-power Li-Ion batteries	E-R3-2009
CDSE	11 OCT '23	10:00	Ernesto Campos	Vladimir Palyulin, Jacob Biamonte	On the trainability of variational quantum algorithms	E-B4-3007
CDSE	11 OCT '23	11:30	Alexey Postnikov	Gonzalo Ferrer	Towards seamless autonomous navigation in dense urban environmen	E-B4-3007
Engineering Systems	11 OCT '23	12:00 - 18:00	Sajjad Asefi	Elena Gryazina	Power system state estimation: centralized and distributed methods	E-R2-2030
Engineering Systems	11 OCT '23	12:00 - 18:00	Dmitrii Baluev	Elena Gryazina	Fast and reliable power system marginal states assessment and optimal control actions for emergency control	E-R2-2030
Engineering Systems	11 OCT '23	12:00 - 18:00	Ivan Zorin	Elena Gryazina	Data-based optimization and machine learning in energy systems	E-R2-2030
Engineering Systems	11 OCT '23	12:00 - 18:00	Galina Chikunova	Tatiana Podladchikova	Coronal dimmings associated with coronal mass ejections: evolution, lifetime, and relation to the directivity	E-R2-2030
Life Sciences	11 OCT '23	10:20	Viktor Mamontov	Mikhail Gelfand Konstantin Severinov	ESCAPE MECHANISMS OF MOBILE GENETIC ELEMENTS AGAINST CRISPR-CAS SYSTEM AND DIVERSITY IN MICROBIAL COMMUNITIES	E-R2-2027
Life Sciences	11 OCT '23	14:30	Elena Sokolinskaya	Dmitriy Chudakov	Genetically encoded fluorescence probes for studying intracellular transport and activity of SARS-CoV-2 proteins	E-R2-2027
Life Sciences	10 OCT '23	12:00	Karyna Karneyeva	Petr Sergiev Konstantin Severinov	EXPLORING TYPE III CRISPR-CAS IMMUNITY IN THERMUS THERMOPHILUS	E-R3-2008
Life Sciences	10 OCT '23	13:00	Tinashe Maviza	Petr Sergiev	Targeting ribosomes with small molecules and ribotoxins	E-R3-2008
Life Sciences	10 OCT '23	15:00	Mariia Vlasenok	Dmitri Pervouchine	Transcriptomic analysis of the interaction between pre-mRNA splicing and intronic polyadenylation	E-R3-2008
Materials Science and Engineering	05 OCT '23	9:10	Mikhail Bulavskiy	Albert Nasibulin	Modification of SWCNT inner space and outer surface in films for applications	E-R3-2007
Materials Science and Engineering	05 OCT '23	10:20	Daniil Ilatovskii	Albert Nasibulin	Rational design of single-walled carbon nanotube films for transparent electronics	E-R3-2007
		10:10	Ekaterina Izotova	Oleg Lychkovskiy	Applications of tensor networks toward dynamics of quantum systems	

Department	Date	Time	Speaker	Supervisor	Title	Location
Physics	29 SEP '23	11:25	Daria Kalacheva	Oleg Astafiev	Superconducting devices with nonlinear kinetic inductance based on hybrid structures made of thin aluminum films	E-R3-2007
		12:40	Mariia Pogodaeva	Vladimir Drachev	Spin-dependent dielectric function of metals from the first principles	
		15:00	Aleksandr Averchenko	Mailis Sakellaris	Laser-writing of 2D semiconductors	
		16:15	Anastasiia Merdalimova	Gorin Dmitry	Optical Sensors Based on Hollow-Core Microstructured Optical Waveguides	
Engineering Systems	29 SEP '23	14:00	Aleksandr Petrovskii	Dzmitry Tsetserukou	Development of two-wheeled swarm of robots for Mars exploration	E-R2-2011;
		15:15	Vladimir Poliakov	Dzmitry Tsetserukou	Advanced Surgical Training for Office Hysteroscopy	
		16:30	Viktor Rakhmatulin	Dzmitry Tsetserukou	Robotic System for Automatic Charging of Electric Vehicles in Complex Lighting Conditions and Human Presence	
Petroleum Engineering	14 SEP '23	10:00	Desmond Dorhjie Batsa	Alexey Cheremisin	Characterisation of the Mechanisms that Influence Gas-liquid flow in Porous Media.	E-R2-2030
		11:20	Elizaveta Shvalyuk	Alexei Tchistiakov	Application of Microstructural Characteristics for Rock Typing Aimed at Delineation and Evaluation of Low-permeable Clastic and Complex Carbonate Reservoirs	
		13:40	Ekaterina Gurina	Dmitri Koroteev	Development of algorithms for predictive alarming on non-standard situations at well drilling	
Materials Science and Engineering	29 June '23	10:10	Ilya Novikov	Albert Nasibulin	Assembling networks of single-walled carbon nanotubes for electronic and optical applications	E-R3-2007; online link (TBA)
		11:30	Vadim Sotskov	Alexander Shapeev	Design of potassium-ion batteries using organic and inorganic electrode materials	
CDSE	29 June '23	12:00	Sergey Osipenko	Yury Kostyukevich	Machine learning based prediction of chromato-mass-spectrometric small molecule characteristics to increase annotation efficiency in untargeted analysis	E-R2-2030; online link (TBA)
Life Sciences	28 June '23	13:00	Nikita Shepelev	Dontsova Olga	Some aspects of functioning of telomerase complex in yeast and human	E-R2-2030; online link: https://vc.skoltech.ru/b/ele-bfe-vju-5jx
		14:30	Dmitrii Smirnov	Khrameeva Ekaterina	Investigation of the role of SIRT6 in molecular mechanisms of gene expression regulation, metabolism and aging	
		16:00	Bogdan Kirillov	Panov Maxim	Uncertainty Quantification and Neural Network Interpretation in studying CRISPR mechanics	
Engineering Systems	22 June '23	TBA	Davalos Fernando	Federico Martin Ibanez	Supercapacitor Energy Storage System based on Modular Multilevel Converter with embedded self-balance control	E-R3-2007;
		TBA	Mitrovic Mile	Petr Vorobev	Data-Driven Stochastic AC-OPF using Gaussian Processes	
Petroleum Engineering	19 June '23	10:00	Anna Shevtsova	Sergey Stanchits	Laboratory study of fracture behavior and improvement of hydraulic fracture efficiency, induced by injection of liquids with modified rheological parameters	E-R3-2007;
Physics	16 June '23	10:10	Ivan Gnusov	Lagoudakis Pavlos; Alyatkin Sergey	Spinor and vorticity control in polariton condensates	E-R2-2030
		11:10	Igor Salimon	Mailis Sakellaris	Laser synthesis and modification of nanomaterials	
		12:10	Julijana Cvjetinovic	Gorin Dmitry; Korsunsky Alexander	Optical and mechanical properties of nanostructured microparticles based on diatom algae	
		14:30	Maksim Mokrousov	Gorin Dmitry	Bimodal fluorescence and optoacoustic contrast agents based on nanostructures containing J-aggregates	
Petroleum Engineering	13 June '23	10:00	Alexandra Scherbakova	Alexey Cheremisin	Investigation of Alkyl Ether Carboxylate Surfactants Performance in Carbonate Reservoirs	E-R3-2007
		11:20	Victor Duplyakov	Andrei Osiptsov	Machine Learning on Field Data for Hydraulic Fracturing Design Optimization	
		13:40	Pavel Afanasiev	Alexey Cheremisin	In situ hydrogen generation within hydrocarbon reservoirs	
		10:10	Vahid Ramezankhani	Stanislav Fedotov	Design of potassium-ion batteries using organic and polyanionic electrode materials	

Materials Science and Engineering	7 June '23	11:30	Nikita Akhmetov	Alexei Buchachenko	Development of lithium-conducting polymer-ceramic membranes for lithium-metal hybrid flow batteries	E-R3-2007;
		12:50	Mohammad Owais	Sergey Abaimov	Design and characterization of thermally conductive polymer nanocomposites with tunable electrical resistivity	
Mathematics and Mechanics	5 June '23	11:10	Yulia Kuzminova	Igor Shishkovsky; Stanislav A. Evlashin	Properties and characteristics of the CrFeCoNi high-entropy alloys and its modifications produced by additive manufacturing techniques	E-R2-2030;
		12:20	Radmir Karamov	Ivan Sergeichev; Stepan Lomov (KU Leuven); Yentl Swolfs (KU Leuven)	Machine learning enhancement of micro-CT based micromechanics of composite materials	
		14:30	Stanislav Chernyshikhin	Igor Shishkovsky	Tailoring the functional properties of NiTi shape memory alloy by high-resolution laser powder bed fusion	
		15:40	Konstantin Makarenko	Igor Shishkovsky	Microstructural, Mechanical, and Thermal Properties Evaluation of Functionally Graded Fe-Cu Structures after Direct Energy Deposition	