

Potential scientific supervisors: Applied Mathematics & Artificial Intelligence

№	Surname	Name	University	Scientific interests	Link to portfolio
1.	Abyzov Adel Nailevich	Adel	Kazan (Volga region) Federal University	Theory of rings and modules and its applications	https://kpfu.ru/portal/ias_utils.file_download?p_table_id=4&p_file=F_612274473/Abyzov.portfolio.pdf
2.	Baklanova	Olga	National Research Tomsk State University	Applied experience with designing and developing end-to-end solutions using deep learning and image analysis techniques. Applied experience with Python and Linux. Applied experience with object detection and segmentation models. Familiarity with Deep Learning frameworks such as TensorFlow.	http://tsuod.tilda.ws/baklanovaen
3.	Vesnin	Andrei	Novosibirsk State University	Hyperbolic 3-dimensional manifolds and orbifolds	https://www.nsu.ru/upload/medialibrary/397/3fnu23bpcpakgm2obifv2i8oggmdivrzc/Vesnin_AHFL.pdf
4.	Volkov	Mikhail	Ural Federal University named after the first President of Russia B.N. Yeltsin	Problems at the interface of semigroup and semi-ring theory and computer science	https://urfu.ru/en/research/postgraduate-programs-in-english/admission-options/open-doors-olympiad/research-supervisors/mikhail-v-volkov/
5.	Gafarov	Fail	Kazan (Volga region) Federal University	machine learning, artificial neural networks, deep learning biological neural network models, big data, data mining	https://kpfu.ru/portal/ias_utils.file_download?p_table_id=4&p_file=F_1410223687/Gafarov.F.M..Portfolio.pdf

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6.	Denisov	Artem	Saint Petersburg Electrotechnical University "LETI"	Mathematical modeling of the processes of sustainable (ESG) development of regions • machine learning and data analysis • system analysis and management decision support; • modeling and quality management of business processes; • artificial intelligence	https://etu.ru/assets/files/oda/denisov-a-r-portfolio.pdf
7.	Zamyatin	Aleksandr	National Research Tomsk State University	Development of theoretical and technological fundamentals of artificial intelligence, big data preprocessing and analysis methods and models, machine learning and semantic data systems methods and models, pattern recognition and classification, technologies for automated detection and classification of ground and overwater objects using statistical and neural network algorithms	http://tsuod.tilda.ws/zamyatinen
8.	Zun	Pavel	ITMO University	Applying computer models, both imitation-based and ML-based, to improve understanding of tissue function and properties, to find ways to design better medical devices and to grow tissues in vitro for transplantology; validation and verification of these models. Main application area is cardiology and the circulatory system.	https://aspirantura.itmo.ru/?main=43
9.	Ivanov	Sergey	Moscow Aviation Institute	Stochastic programming problems with probabilistic criteria	https://files.mai.ru/site/upload/doc/Иванов_С_В_(англ).pdf

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10.	Kalimullin	Iskander	Kazan (Volga region) Federal University	Mathematical logic, computability theory, theory of computable models	https://kpfu.ru/portal/ias_utils.file_download?p_table_id=4&p_file=F_476809317/Kalimullin.I.Sh..portfolio.pdf
11.	Kolesnikov	Ivan	National Research Tomsk State University	The research concerns the geometric theory of functions of a complex variable. Generalization of the Christoffel-Schwarz formula for regions of a special type. Development of a method for constructing conformal mappings of a canonical domain onto polygons with a rectilinear boundary, as well as polygons with a boundary consisting of circular arcs. The problem of determining the conformal modulus of a region. Variational and parametric Levner method for solving extremal problems of function theory.	http://tsuod.tilda.ws/kolesnikoven
12.	Koshkin	Gennadii	National Research Tomsk State University	Fundamental-academic research in the field of applied probabilistic analysis of complex systems, creation of methods of nonparametric statistics and identification of dynamic systems, as well as methods of mathematical modeling	http://tsuod.tilda.ws/koshkinen
13.	Kryanev	Aleksander	MEPhI	Mathematical theory of nuclear reactors, mathematical methods for processing uncertain data, statistical methods for solving ill-posed problems, including methods for taking into account additional information about the desired solutions	https://eng.mephi.ru/study-with-us/contests/supervisors/avkryanev

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14.	Kudryashov	Nikolay	MEPhI	Nonlinear mathematical models and methods for their research.	https://eng.mephi.ru/study-with-us/contests/supervisors/nakudryashov
15.	Mironov	Andrey	Novosibirsk State University	Integrable Systems, Geometry, Mathematical Physics, Dynamical Systems	https://www.nsu.ru/upload/medialibrary/d0b/n7yqlm8qlfw0j23x2xqzvc98v5ody2ok/Mironov-en.pdf
16.	Moiseev	Aleksandr	National Research Tomsk State University	Mathematical models of communication networks and distributed data processing systems in forms of queueing systems and networks of different types and configurations, modeling of computer networks at various architectural levels including wireless level networks access, including models of procedures for managing an individual data link transmission and a multilink transport connection that takes into account the distortion factors in communication channels and blocking of the buffer memory of transit switching nodes, as well as the level of the load on network connections and the pipeline effect that manifests itself when multi-packets messages are transported over multi-link data paths, analysis in applicability of forward error correction technique.	http://tsuod.tilda.ws/moiseeven
17.	Moiseeva	Svetlana	National Research Tomsk State University	Mathematical models of communication networks and distributed data processing systems in forms of queueing systems and networks of different types and configurations, modeling of computer	http://tsuod.tilda.ws/moiseevasvetlanaen

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				networks at various architectural levels including wireless level networks access, including models of procedures for managing an individual data link transmission and a multilink transport connection that takes into account the distortion factors in communication channels and blocking of the buffer memory of transit switching nodes, as well as the level of the load on network connections and the pipeline effect that manifests itself when multi-packets messages are transported over multi-link data paths, analysis in applicability of forward error correction technique.	
18.	Pavlovskiy	Evgeniy	Novosibirsk State University	Development of machine learning algorithms with a quantum approach in applications to NLP, speech and image	https://www.nsu.ru/upload/medialibrary/ae0/ahmtr6meo6e1earhtklcixmjxu8uqu/%D0%90%D0%BD%D0%BA%D0%B5%D1%82%D0%B0%20%D0%B0%D0%BD%D0%B3%D0%BB%D0%9F%D0%B0%D0%B2%D0%BB%D0%BE%D0%B2%D1%81%D0%BA%D0%B8%D0%B9.pdf
19.	Pchelintsev	Valeriy	National Research Tomsk State University	<ol style="list-style-type: none"> 1. Development of geometric methods for estimating the eigenvalues of elliptic operators in a wide class of domains. 2. Applications of quasiconformal analysis to the Dirichlet and Neumann problems for the p-Laplace operator. 3. Estimates for the eigenvalues for the Laplace operator, p-Laplace operator with Dirichlet and Neumann boundary conditions in domains of Euclidean space. 	http://tsuod.tilda.ws/pchelintsevvalerii_eng

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20.	Pchelintsev	Evgeny	National Research Tomsk State University	<p>Model selection methods for nonparametric estimation of signals and images determined by linear stochastic differential equations with non-Gaussian disturbances.</p> <p>2. Improvement of non-asymptotic quality of statistical estimation in mean square accuracy.</p> <p>3. Development of efficient estimation methods for general semimartingale regression models in continuous time</p> <p>4. Development of statistical machine learning methods for big data processing</p>	http://tsuod.tilda.ws/pchelintsevevgenii_eng
21.	Simakov	Sergey	Moscow Institute of Physics and Technology (National Research University)	<p>Reduced order mathematical modeling of the cardiovascular and respiratory systems, transport and control processes. The analysis of blood flow in the human body before and after vascular operations on removing stenoses, cardiac function in the presence of pathologies, microcirculation in the presence of tumor angiogenesis, metabolism during intensive physical exercise.</p>	https://eng.mipt.ru/programs/mathematical-modeling-of-biological-fluids-flows/
22.	Trofimov	Aleksander	MEPhI	Machine learning and neural networks.	https://eng.mephi.ru/study-with-us/contests/supervisors/agtrofimov
23.	Tumakov	Dmitrii	Kazan (Volga region) Federal University	<p>Mathematical modeling of the processes of propagation and diffraction of electromagnetic waves. Design of microstrip antennas. Supercomputing. Neural networks. Recognition of images and objects. Machine learning methods in</p>	https://kpfu.ru/portal/ias_utils.file_download?p_table_id=4&p_file=F1126488437/Tumakov.D.N..Portfolio.pdf

LIST OF POTENTIAL SCIENTIFIC SUPERVISORS

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				image processing. Processing of medical signals and images.	
24.	Sheremet	Mikhail	National Research Tomsk State University	<p>Conjugate heat and mass transfer</p> <p>Natural, mixed and forced convection</p> <p>Heat and mass transfer in porous media</p> <p>Fluid flow and heat transfer in nanofluids</p> <p>Turbulent heat and mass transfer</p> <p>Convective-radiative heat transfer</p> <p>Heat transfer and flow pattern in electronic systems</p> <p>Bioheat and mass transfer</p> <p>Heat transfer and flow pattern in building elements</p> <p>Computational fluid dynamics and heat transfer</p>	http://tsuod.tilda.ws/sheremeten
25.	Shkodyrev	Vyacheslav	Peter the Great St Petersburg Polytechnic University	Development of new mathematical methods for modeling objects and phenomena.	opendoors.spbstu.ru/files/supervisors_portfolio/shkodyrev.pdf