


University	Peter the Great St. Petersburg Polytechnic University
Level of English proficiency	Advanced (C1)
Educational program and field of the educational program for which the applicant will be accepted	<p>COMPUTER &amp; DATA SCIENCE</p> <p>2.3.5. Mathematical and software support for computers, complexes and computer networks</p>
List of research projects of the potential supervisor (participation/leadership)	<ul style="list-style-type: none"> <li>• Trust management in a blockchain based fog computing platform with trustless smart oracles</li> <li>• An approach to net-centric control automation of technological processes within industrial IoT systems</li> <li>• Formal Quality of Service assurances, ranking and verification of cloud deployment options with a probabilistic model checking method</li> <li>• Regulation of the movement of construction waste, demolition and soil in the city of Moscow</li> </ul>
List of the topics offered for the prospective scientific research	<ul style="list-style-type: none"> <li>• Software verification and testing automation</li> <li>• Approaches to software quality assurance</li> <li>• Formal models in software development process</li> <li>• Artificial intelligence applications</li> </ul>
 <p>Pavel DrobinsteV: PhD, Associate Professor</p>	<i>2.02. Electrical eng, electronic eng</i>
	<p>Supervisor's research interests</p> <p>Application of formal verification methods to ensure software quality. Automation of software development processes with the use of methods for generating software artifacts</p>
	<p>Supervisor's main publications</p> <ul style="list-style-type: none"> <li>• Morozov, J., Saradgishvili, S., Tumanyan, P., ...Drobintsev, P., Wu, J.Improving Recommendation Systems with a Combination of Similarity Measures on the Example of Radio Service Data Lecture Notes in Electrical Engineeringthis link is disabled, 2023, 994 LNEE, pp. 597–603</li> <li>• Chikov, A., Egorov, N., Medvedev, D., ...Krasichkov, A., Kaplun, D. Determination of the athletes' anaerobic threshold using machine learning methods. Biomedical Signal Processing and Controlthis link is disabled, 2022, 73, 103414</li> </ul>

- Chikov, A.E., Pavlov, E.A., Egorov, N.A., ...Chikova, Drobintsev, P.D. S.N., ARTIFICIAL INTELLIGENCE MODELING OF PHYSIOLOGICAL PARAMETERS AT ANAEROBIC THRESHOLD | МОДЕЛИРОВАНИЕ ФИЗИОЛОГИЧЕСКИХ ПОКАЗАТЕЛЕЙ НА УРОВНЕ ПОРОГА АНАЭРОБНОГО ОБМЕНА С ИСПОЛЬЗОВАНИЕМ МЕТОДОВ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА. Human Sport Medicinethis link is disabled, 2022, 22, pp. 46–53
- Ladygina, P., Samochadin, A., Voinov, N., Drobintsev, P., Fedorov, I. Predicting Concrete Compressive Strength Using Machine Learning. Lecture Notes in Electrical Engineeringthis link is disabled, 2022, 880 LNEE, pp. 450–457
- Voinov, N.V., Voroshilov, M.K., Molodyakov, S.A., ...Prokofiev, O.V., Zajtsev, I.V. Predicting RTS Index Futures Using Machine Learning Proceedings of 2021 24th International Conference on Soft Computing and Measurements, SCM 2021, 2021, pp. 193–196, 9507184
- Kovalev, A.D., Nikiforov, I.V., Drobintsev, P.D. Automated approach to semantic search through software documentation based on Doc2Vec algorithm. Informatsionno-Upravliaiushchie Sistemythis link is disabled, 2021, (1), pp. 17–27
- Utkin, L., Drobintsev, P., Kovalev, M., Konstantinov, A. Combining an autoencoder and a variational autoencoder for explaining the machine learning model predictions. Conference of Open Innovation Association, FRUCT, 2021, 2021-January, 9347612
- Kasilov, V., Drobintsev, P., Voinov, N. High-performance genome sorting program. Procedia Computer Science, 2021, 193, pp. 464–473
- Monastirev, V., Drobintsev, P., Kochovski, P. Methodology of Service Development with a Single Application Programming Interface. Smart Innovation, Systems and Technologies, 2021, 220, pp. 67–76
- Pavlov, E., Selin, I., Drobintsev, P., Voinov, N., Shemyakin, I. Designing Shoe Lasts Through 3D Feet Scans Clusterization Using Anthropometric Parameters of Population Groups. Lecture Notes in Electrical Engineeringthis link is disabled, 2021, 737, pp. 479–486
- Drobintsev, P., Voinov, N., Kotlyarova, L., Selin, I., & Aleksandrova, O. (2020). Optimization of technological processes at production sites based on digital modeling doi:10.1007/978-981-15-2341-0\_75 Retrieved from www.scopus.com

	<ul style="list-style-type: none"> <li>• Kochovski, P., Drobintsev, P. D., &amp; Stankovski, V. (2019). Formal quality of service assurances, ranking and verification of cloud deployment options with a probabilistic model checking method. <i>Information and Software Technology</i>, 109, 14-25. doi:10.1016/j.infsof.2019.01.003</li> <li>• Kochovski, P., Gec, S., Stankovski, V., Bajec, M., &amp; Drobintsev, P. D. (2019). Trust management in a blockchain based fog computing platform with trustless smart oracles. <i>Future Generation Computer Systems</i>, 101, 747-759. doi:10.1016/j.future.2019.07.030</li> <li>• Kochovski, P., Sakellariou, R., Bajec, M., Drobintsev, P., &amp; Stankovski, V. (2019). An architecture and stochastic method for database container placement in the edge-fog-cloud continuum. Paper presented at the Proceedings - 2019 IEEE 33rd International Parallel and Distributed Processing Symposium, IPDPS 2019, 396-405. doi:10.1109/IPDPS.2019.00050 Retrieved from <a href="http://www.scopus.com">www.scopus.com</a></li> <li>• Voinov, N., Rodriguez Garzon, K., Nikiforov, I., &amp; Drobintsev, P. (2019). Big data processing system for analysis of GitHub events. Paper presented at the Proceedings of 2019 22nd International Conference on Soft Computing and Measurements, SCM 2019, 187-190. doi:10.1109/SCM.2019.8903782 Retrieved from <a href="http://www.scopus.com">www.scopus.com</a></li> </ul>
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