University	Saint Petersburg Polytechnic University
Level of English proficiency	Upper Intermediate
Courses and fields of studies	31.06.01 Clinical medicine (educational program)
offered for applicants	3.1.13 Urology and andrology (field of the educational program)
Projects for potential academic	5.2.2. Mathematical, statistical and instrumental methods in
supervision	economics
Topics offered for prospective	1) RSF grant #23-28-01213 "Theory and methodology of short-
researches	term economic forecasting using complex-valued vector
	autoregressions" (2023-2024);
	2) RFBR grant #19-010-00610\19 "Theory, methods and
	techniques for forecasting economic development using
	autoregressive models of complex variables" (2019-2021);
	3) RHF grant #16-02-00172 "Development of the theory of
	multi-level competition, its methods and techniques" (2016-
	2018);
	4) RFBR grant #13-06-00316 "Complex-valued analysis of the
	efficiency of development of the mineral resource complex of
	Russia" (2013-2015);
	5) International grant of the Russian Humanitarian Science
	Foundation and the National Academy of Sciences of Ukraine
	No. 10-02-00716 a/U "Models for assessing the unevenness and
	cyclicality of the dynamics of socio-economic development of
	the regions of Ukraine and Russia" $(2010 - 2012)$ ;
	6) grant of the Russian Humanitarian Science Foundation No. 08-
	02-00212a "Innovation, entrepreneurship and competition: a
	systemic study of the relationship" (2008-2010);
	7) grant of the Russian Foundation for Basic Research No. 07-06-
	00151 "Development of the foundations of economic and
	mathematical modeling using complex variables" (2007-2009).
	Mathematical, statistical and instrumental methods in economics
	Supervisor's research interests
	Models and methods of behavioral economics; mathematical
	modeling of market equilibrium; modeling and forecasting of
	economic conditions; modeling of multilevel competition;
The second s	adaptive methods of economic forecasting; complex-valued
	economics: production functions of complex variables, complex-
	valued statistics, modeling of complex nonlinear economic
	processes using methods of the theory of functions of complex
	variables, complex-valued autoregressions, vector
	autoregressions, neural and polynomial networks
	Study program highlights
	Widespread use in economics of sections of the theory of functions
	of a complex variable
Research supervisor:	Supervisor's specific requirements:
Sergey Svetunkov,	Excellent knowledge of mathematical statistics, economics and
	programming in R or Python
	Supervisor's publications
Doctor of Economics (St.	5 scientific articles in Web of Science and Scopus journals over the
Petersburg University of	past 5 years.
Economics and Finance)	Most significant scientific works:
	1. Svetunkov S.G., Svetunkov I.S. Complex-Valued Econometrics
	with Examples in R. Modelling, Regression and Applications.

Springer Cham, 2024, 154 p. <u>https://doi.org/10.1007/978-3-031-</u>
<u>62608-1</u> .
2. Svetunkov Sergey. Complex-Valued Modeling in Economics and
Finance. Springer Science+Business Media, New York, 2012. 318
p. <u>https://doi.org/10.1007/978-1-4614-5876-0</u>
3. Svetunkov S. Elementary image of the Kolmogorov-Gabor
polynomial in economic modeling. Technoeconomics. 2024. 3. 2
(9). 4–21. DOI: <u>https://doi.org/10.57809/2024.3.2.9.1</u>
4. Technoeconomics. 2024. 3. 2 (9). 4–21. DOI:
https://doi.org/10.57809/2024.3.2.9.1