

# Georgian National Academy of Sciences

ფოტო

# Personal Data (CV)

Surname	Nadaraya	First Name	Elizbar
Address (work)	Tbilisi 0143,	Date and place of birth	April 17, 1935
	1 I. Chavchavadze Avenue,		Khobi, Georgia
	Ivane Javakhishvili Tbilisi State		
	University		
Citizenship	Georgia	Contact phone number	Home: +995 32 2 230 222
			Work: +995 32 2 304 145
			Mobile: +995 599 570 555; +995 577
			555 135
E-mail	elizbar.nadaraya@tsu.ge		

### 1. Education

Institution	Learning Time
Village Dzveli Khibula Secondary School	1943-1954
Tbilisi State University, faculty of mechanics and mathematics	1954-1959
Steklov Moscow Mathematical Institute-Postgraduate Program	1960-1963

## 2. Scientific or Academic Degree and Rank

	Title of the thesis	Date of conferment
Ph.D. thesis	Statistical Estimation of the Probability Density Function and	1964
	Some Related Characteristics	
Doctoral thesis	Statistical Estimation of Functional Characteristics of the	1981
	Distribution Law of Observations	
Academician Doctor	Professor of Ivane Javakhishvili Tbilisi State University	1982
Research Follow of the Academy		
Corresponding Member of the	Corresponding Member of the Academy in Mathematics	2001

Academy		
Member of the Academy (Academician)	Member of the Academy in Information Processing and Statistical Analysis	2023

## 3. Knowledge of Languages

Foreign languages Level of language proficiency (fluent, intermediate, beginning with the help of a dictionary)	
English	beginning with the help of a dictionary
Russian	fluent

## 4. Work Experience (Including permanent positions abroad)

Date	Institution	Position
1966-1969	Institute of Applied Mathematics of Tbilisi State University	Scientific researcher of the research laboratory
1969-1970	Institute of Applied Mathematics of Tbilisi State University	Deputy head of the department of probability and mathematical statistics
1970-1971	Institute of Applied Mathematics of Tbilisi State University	Acting head of the department of probability and mathematical statistics
1971-1973	Institute of Applied Mathematics of Tbilisi State University	Head of the department of probability and mathematical statistics
1973-1978	Economics and Law Institute of the Georgian Academy of Sciences	Head of the department of probability theory and mathematical statistics
1978-1982	Ivane Javakhishvili Tbilisi State University	Docent of the department of probability theory and mathematical statistics
1982-1986	Ivane Javakhishvili Tbilisi State University	Professor of the department of probability theory and mathematical statistics
1986-2006	Ivane Javakhishvili Tbilisi State University	Head of the department of probability theory and mathematical statistics
2006-2009	Ivane Javakhishvili Tbilisi State University	Head of the probability theory and mathematical statistics division and full Professor at the faculty of exact and natural sciences
2009-2012	Ivane Javakhishvili Tbilisi State University	Head of the probability theory and mathematical statistics division and full Professor at the faculty of exact and natural sciences
2012-2018	Ivane Javakhishvili Tbilisi State University	Head of the probability theory and mathematical statistics division and full Professor at the faculty of exact and natural sciences
From 2018 to present	Ivane Javakhishvili Tbilisi State University	Professor of the department of probability theory and mathematical statistics at the faculty of exact and natural sciences
From 2018 to present	Ivane Javakhishvili Tbilisi State University	Head of the department of probability theory and mathematical statistics at the faculty of exact and natural sciences

## 4.1 Teaching Activity

Date	Institution	Position
1978-1982	Ivane Javakhishvili Tbilisi State University	Docent of the department of probability theory and mathematical statistics
1982-1986	Ivane Javakhishvili Tbilisi State University	Professor of the department of probability theory and mathematical statistics
2006-2009	Ivane Javakhishvili Tbilisi State University	Head of the probability theory and mathematical statistics division and full Professor at the faculty of exact and natural sciences

2009-2012	Ivane Javakhishvili Tbilisi State University	Head of the probability theory and mathematical statistics
		division and full Professor at the faculty of exact and
		natural sciences
2012-2018	Ivane Javakhishvili Tbilisi State University	Head of the probability theory and mathematical statistics
		division and full Professor at the faculty of exact and
		natural sciences
From 2018 to	Ivane Javakhishvili Tbilisi State University	Professor of the department of probability theory and
present		mathematical statistics at the faculty of exact and natural
		sciences

#### 4.2 Work Abroad (Long-term visits to international universities or research centers)

Date	Place and Institution

#### 5. Scientific Interests

Probability Theory and Mathematical Statistics

Theory of Nonparametric Estimation of Functional Characteristics of Distributions

Theory of Statistical Estimations

Nonparametric Methods in Statistics

Nonparametric Estimation of Density and Regression Functions

#### 6. Publications (Total number)

Author of up to 200 publications, including 5 monographs and 6 textbooks

#### 6.1 Citation Index

Scopus, h index-4, citation 36 Google Scholar, h index-10, citation 7659 Web of Sciences, h index-4, citation 616

#### 6.2 Monographs

Years	
1983	Nonparametric Estimation of Probability Density and Regression Curve.
	Tbilisi University Press, Tbilisi.
1989	Nonparametric estimation of probability densities and regression curves. Kluwer Academic Publishers Group,
	Dordrecht
2005	Some Problems of the Theory of Nonparametric Estimation of Functional Characteristics of the Distribution
	Law of Observations. Tbilisi University Press, Tbilisi.
2008	Some Problems of the Theory of Nonparametric Estimation of Functional Characteristics of the Distribution
	Law of Observations (Second Revised and Expanded Edition). Tbilisi University Press, Tbilisi.
2013	Nonparametric estimation of probability densities and regression curves. (new edition) Kluwer Academic
	Publishers Group, Dordrecht

#### 6.3 Principal Papers (no more than 50)

Years	

2009	* Statistical estimation of a logarithmic derivative measure in a Hilbert space (with G. A. Sokhadze,
	A. D. Shatashvili). (Russian) Kibern. Sist. Anal. 2009, no. 5, 106-110; translation in Cybern. Syst. Anal. 45
	(2009), no. 5, 762-766
2009	* On some goodness-of-fit tests based on estimates of kernel-type distribution densities (with P. Babilua,
	G. Sokhadze). (Russian) Teor. Veroyatn. Primen. 54 (2009), no. 2, 359-367; translation in Theory Probab.
	Appl. <b>54</b> (2010), no. 2, 324-333
2009	* On one property of the Wiener integral and its statistical application (with P. Babilua, A. Shatashvili,
	G. Sokhadze). Random Oper. Stoch. Equ. 17 (2009), no. 2, 173-187
2010	* On the statistical estimation of the logarithmic derivative of a measure in a Hilbert space (with
	G. Sokhadze). Georgian Math. J. 17 (2010), no. 4, 741-747
2010	* On a measure of integral square deviation with generalized weight for the Rosenblatt-Parzen probability
	density estimator (with P. Babilua, G. Sokhadze). Ukr. Mat. Zh. 62 (2010), no. 4, 514-535 and in Ukr. Math. J.
	<b>62</b> (2010), no. 4, 588-611
2010	On the regression estimation in a Hilbert space (with P. Babilua, G. Sokhadze). Bull. Georgian Natl. Acad. Sci.
	(N.S.) 4 (2010), no. 1, 8-11
2010	On the estimation of a distribution function by an indirect sample. I (with P. Babilua, G. Sokhadze). Bull.
	Georgian Natl. Acad. Sci. (N.S.) 4 (2010), no. 3, 5-12
2010	* Estimation of a distribution function by an indirect sample (with P. Babilua, G. Sokhadze). Ukr. Mat. Zh. 62
	(2010), no. 12, 1642-1658 and <i>Ukr. Math. J.</i> <b>62</b> (2010), no. 12, 1906-1924
2010	On one problem of hypothesis testing (with B. Dochviri, O. Purtukhia, G. Sokhadze). Rep. Enlarged Sess.
	Semin. I. Vekua Inst. Appl. Math. 24 (2010), 31-34
2010	On the estimation of probability of initial distribution dynamics on sample at the end of interval (with
	P. Babilua, G. Sokhadze). The Third International Conference "Problems of Cybernetics and Informatics"
	(September 6-8, 2010), pp. 223-227, Baku, Azerbaijan, 2010
2010	* Integral functionals of the density (with D. M. Mason, G. Sokhadze). <i>Inst. Math. Stat. (IMS) Collect.</i> <b>7</b> (2010),
	153-168
2011	On the estimation of the coefficients in one stochastic model of an enzymic reaction (with B. Dochviri, G.
	Sokhadze, G. Tkemaladze). Bull. Georgian Natl. Acad. Sci. (N.S.) (2011) 5, no. 1, 104-107
2011	* On the estimation of a distribution function by an indirect sample, I (with P. Babilua, G. Sokhadze). <i>Adv.</i>
	Appl. Math. Sci. 8 (2011), no. 1, 27-37
2011	* On the estimation of a distribution function by an indirect sample, II (with P. Babilua, G. Sokhadze). <i>Adv.</i>
	Appl. Math. Sci. 9 (2011), no. 2, 125-135
2011	On the estimation of a distribution function by an indirect sample, II (with P. Babilua, G. Sokhadze). <i>Bull.</i>
	Georgian Natl. Acad. Sci. (N.S.) 5 (2011), no. 2, 11-18
2011	On one problem of Stefan (with B. Dochviri, O. Purtukhia, G. Sokhadze). <i>Appl. Math. Inform. Mech.</i> <b>16</b>
	(2011), no. 1, 3-7
2012	On the Cramer-Rao inequality in an infinite dimensional space (with P. Babilua, M. Patsatsia, G. Sokhadze).
	Bull. Georgian Natl. Acad. Sci. (N.S.) 6 (2012), no. 1, 5-13
2012	On one nonparametric estimate of a Bernoulli regression function (with P. Babilua, M. Patsatsia). <i>Bull.</i>
	Georgian Natl. Acad. Sci. (N.S.) <b>6</b> (2012), no. 2, 5-10
2012	On the Cramer-Rao inequality in an infinite dimensional space (with O. Purtukhia, G. Sokhadze). <i>Proc. A.</i>
	Razmadze Math. Inst. 160 (2012), 121-134
2012	On one statistical problem in the Hilbert space (with Z. Khechinashvili, G. Sokhadze, A. Tkeshelashvili). <i>Proc.</i>
	I. Vekua Inst. Appl. Math. <b>61-62</b> (2011-2012), 55-64 (2012)
2013	* On the integral square measure of deviation of a nonparametric estimator of the Bernoulli regression (with
2015	P. Babilua, G. Sokhadze). (Russian) <i>Teor. Veroyatn. Primen.</i> <b>57</b> (2012), no. 2, 322-336; translation in <i>Theory</i>
	Probab. Appl. 57 (2013), no. 2, 265-278
2013	* About the nonparametric estimation of the Bernoulli regression (with P. Babilua, G. Sokhadze). <i>Commun.</i>
2010	Stat., Theory Methods <b>42</b> (2013), no. 22, 3989-4002
2014	* Functionals of Gasser-Muller estimators (with P. Babilua, G. Sokhadze). <i>Turkish J. Math.</i> <b>38</b> (2014), no. 6,
201 <b>T</b>	1090-1101
2014	
2014	On testing the hypothesis of equality of two Bernoulli regression functions (with P. Babilua, G. Sokhadze).
	Bull. Georgian Natl. Acad. Sci. (N.S.) 8 (2014), no. 1, 18-26

2014	* About testing the hypothesis of equality of two Bernoulli regression curves (with P. Babilua, G. Sokhadze). <i>J.</i>	
	Math. Sci. Model. 4 (2014), no. 9, 142-150	
2014	On integral square deviation of two kernel estimators of Bernoulli regression functions (with P. Babilua,	
	G. Sokhadze). Rep. Enlarged Sess. Semin. I. Vekua Appl. Math. 28 (2014), 74-77	
2015	* On the square-integrable measure of the divergence of two nuclear estimations of the Bernoulli regression	
	functions (with P. K. Babilua, G. A. Sokhadze). (Russian) <i>Ukr. Mat. Zh.</i> <b>67</b> (2015), no. 1, 3-18; translation in	
	<i>Ukr. Math. J.</i> <b>67</b> (2015), no. 1, 1-18	
2015	* Integral functionals of the Gasser-Müller regression function (with D. Arabidze, P. Babilua, G. Sokhadze, A.	
	Tkeshelashvili). <i>Ukr. Math. J.</i> <b>67</b> (2015), no. 4, 493-505 and <i>Ukr. Mat. Zh.</i> <b>67</b> (2015), no. 4, 435-446	
2015	On functionals of a density (with G. Sokhadze). <i>Proc. A. Razmadze Math. Inst.</i> <b>168</b> (2015), 87-97	
2015	* On the limit properties of maximal likelihood estimators in a Hilbert space (with P. Babilua, G. Sokhadze).	
2013	Georgian Math. J. 22 (2015), no. 2, 171-178	
2015	On functionals of Gasser-Müller estimators (with P. Babilua, G. Sokhadze). Rep. Enlarged Sess. Semin. I.	
2013		
2017	Vekua Appl. Math. <b>29</b> (2015), 16-19	
2016	* Verification of the hypotheses on the equality of densities of distributions (with P. K. Babilua,	
	G. A. Sokhadze). (Russian) <i>Ukr. Mat. Zh.</i> <b>68</b> (2016), no. 5, 586-600; translation in <i>Ukr. Math. J.</i> <b>68</b> (2016), no.	
	5, 661-678	
2016	On testing hypothesis of equality distribution density (with P. Babilua, G. Sokhadze). <i>Bull. Georgian Natl.</i>	
	Acad. Sci. (N.S.) 10 (2016), no. 3, 27-32	
2016	* On integral functionals of a density (with G. Sokhadze). Commum. Stat. Theory Methods 45 (2016), no. 23,	
	7086-7102	
2017	On the estimation of the odds-ratio based on kernel estimates of the regression function (with P. Babilua, M.	
	Patsatsia, Z. Khechinashvili). Bull. Georgian Natl. Acad. Sci. (N.S.) 11 (2017), no. 3, 14-21	
2018	On the homogeneity test based on the kernel-type estimators of a distribution density (with P. Babilua. <i>Trans.</i>	
	A. Razmadze Math. Inst. 172 (2018), no. 3, part A, 318-331	
2018	Professor Gvanji Mania (1918-1985) (with O. Purtukhia). Trans. A. Razmadze Math. Inst. 172 (2018), no. 3,	
	part A, 293-298	
2018	On deviation between kernel-type estimators of a distribution density in some independent samples (with	
	P. Babilua, M. Patsatsia). Bull. TICMI 22 (2018), no. 1, 25-39	
2018	* On deviations between kernel-type estimators of a distribution density in $p \ge 2$ independent samples (with	
	P. K. Babilua). Commun. Stat. Theory Methods 47 (2018), no. 2, 475-492	
2019	* On one homogeneity test based on quadratic deviations between kernel estimators of a distribution density	
	in $p \ge 2$ independent samples (with P. K. Babilua). (Russian) <i>Teor. Veroyatn. Primen.</i> <b>63</b> (2018), no. 6	
	668; translation in <i>Theory Probab. Appl.</i> <b>63</b> (2019), no. 4, 532-544	
2019	* On one homogeneity test based on the kernel-type estimators of the distribution density(with P. K. Babilua).	
	(Russian) <i>Ukr. Mat. Zh.</i> <b>71</b> (2019), no. 4, 443-454; translation in <i>Ukr. Math. J.</i> <b>71</b> (2019), no. 4, 505-518	
2020	* On nonparametric kernel-type estimate of the Bernoulli regression function (with P. K. Babilua). Jaiani,	
2020	George (ed.) et al., Applications of Mathematics and Informatics in Natural Sciences and Engineering, AMINSE	
	2019. Selected papers based on the presentations at the 4th conference (Tbilisi, Georgia, September 23-26,	
	2019), Springer, Cham, Springer Proc. Math. Stat. 334 (2020), 19-36.	
2020	On the testing hypothesis of equality of two Bernoulli regression functions (with P. Babilua). <i>Trans. A.</i>	
2020		
2020	Razmadze Math. Inst. 174 (2020), no. 2, 135-146	
2020	On the estimating the Bernoulli regression function using Bernstein polynomials (with P. Babilua). <i>Bull.</i>	
2020	Georgian Natl. Acad. Sci. 14 (2020), no. 1, 23-27	
2020	On the Chi-square test of homogeneity in case of a simultaneous increase of the number of observations and	
	the number of interval partitions (with P. Babilua, M. Patsatsia). Bull. Georgian Natl. Acad. Sci. 14 (2020) no.	
	2, 14-17	
2021	* On estimating the Bernoulli regression function using Bernstein polynomials (with P. K. Babilua). <i>Commun.</i>	
	Stat., Theory Methods <b>50</b> (2021), no. 17, 3928-3941	
2021	On a new method of testing the hypothesis of equality of two Bernoulli regression functions for group	
	observations (with P. Babilua). Bull. Georgian Natl. Acad. Sci. (N.S.) 15 (2021), no. 4, 13-19	
2022	* On a new estimation method of the Bernoulli regression function (with P. Babilua). (Russian) <i>Teor.</i>	
	Veroyatn. Primen. 67 (2022), no. 2, 209-222; translation in Theory Probab. Appl. 67 (2022), no. 2, 163-174	

2022	* On a new method of the testing hypothesis of equality of two Bernoulli regression functions for group	
	observations (with P. Babilua). Georgian Math. J. 29 (2022), no. 2, 167-177	
2022	On the Nadaraya-Watson type nonparametric estimate of Poisson regression function (with P. Babilua). Trans.	
	A. Razmadze Math. Inst. 176 (2022), no. 3, 429-433	

### 6.4 Textbooks, Additional Manuals, and other Methodological Literature and Training means

Years		
2008	Collection of Problems in Probability Theory. Kutaisi State University Press, Kutaisi	
2008	Probability Theory and Mathematical Statistics (Problem Book). Kutaisi State University Press, Kutaisi	
2009	Probability Theory. Tbilisi State University Press, Tbilisi	
2017	Probability Theory, 3rd Edition. Tbilisi State University Press, Tbilisi	
2018	Stochastic Financial Mathematics, Part I: Discrete Time. "Universali", Tbilisi	

## 6.5 Participation in Scientific Symposiums, Conferences for the last 5 years

Years	Title	Name of Event	
January 29-30,	On the Integral Square Deviation of a	First Scientific Conference in Exact and Natural Sciences	
2013	Nonparametric Estimator of the Bernoulli	ENS113 of Ivane Javakhishvili Tbilisi State University, Tbilisi,	
	Regression Function	Georgia	
April 22-24,	On the Nonparametric Estimation of the	Enlarged Session of the Seminar of Ilia Vekua Institute of	
2013	Bernoulli Regression Function	Applied Mathematics of Ivane Javakhishvili Tbilisi State	
		University, Tbilisi, Georgia	
September 9-15,	Some limit properties of maximal	IV Annual Conference of the Georgian Mathematical Union,	
2013	likelihood estimation in a Hilbert space	Batumi, Georgia	
September 4-7,	Some limit properties of maximal	Second International Conference on "Modern Problems in	
2013	likelihood estimation in a Hilbert space	Applied Mathematics" Dedicated to the 95th Anniversary of	
		Ivane Javakhishvili Tbilisi State University & 45th Anniversary	
		of Ilia Vekua Institute of Applied Mathematics, Tbilisi, Georgia	
January 23 –	On the Asymptotic Properties of the	TSU, Second Scientific Conference of the Faculty of Exact and	
February 3, 2014	Maximum Likelihood Estimator in a Hilbert	Natural Sciences Dedicated to the 125th Anniversary of Andria	
	Space	Razmadze's Birth, Tbilisi, Georgia	
January 23 –	On the Hypothesis of Equality of Two	TSU, Second Scientific Conference of the Faculty of Exact and	
February 3, 2014	Bernoulli Regression Functions	Natural Sciences Dedicated to the 125th Anniversary of Andria	
		Razmadze's Birth, Tbilisi, Georgia	
April 22–24,	On the Distribution of the Integral Square	TSU Ilia Vekua Institute of Applied Mathematics, Tbilisi,	
2014	Deviation of the Regression Function	Georgia	
September 5–6,	On the Functionals of the Probability	Caucasian Mathematicians Conference, CMI, Tbilisi, Georgia	
2014	Density Function		
September 8–12,	On the Limit Distribution of the Integral	Conference of the Congress of Georgian Mathematicians,	
2014	Square Deviation Between Two Estimators of	Batumi, Georgia	
	the Bernoulli Regression Function		
September 9-12,	The Limiting Distribution of an Integral	VI Annual Conference of the Georgian Mathematical Union,	
2015	Square Deviation of Two Kernel Estimators	Batumi, Georgia	
	of Bernoulli Regression Function		
January 25–27,	Integral Functionals of the Density Function	TSU Faculty of Exact and Natural Sciences	
2016		4th Scientific Conference, Tbilisi, Georgia	
January 25–27,	Hypothesis Testing for the Equality of	TSU Faculty of Exact and Natural Sciences	
2016	Probability Densities	4th Scientific Conference, Tbilisi, Georgia	
April 20–22,	On Hypothesis Testing for the Equality of	XXX Enlarged Sessions of the Seminar of the Ilia Vekua	
*	Probability Densities	Institute of Applied Mathematics,	

		Tbilisi, Georgia	
April 20–22,	On the Estimation of an Integral Functional	XXX Enlarged Sessions of the Seminar of the Ilia Vekua	
2016	of the Probability Density Function	Institute of Applied Mathematics,	
		Tbilisi, Georgia	
September 4–9,	On the Test Statistic for the Hypothesis of	7th Joint International Conference of the Georgian	
2016	Equality of Several Probability Densities	Mathematical Union & the Georgian Union of Mechanics,	
		Batumi, Georgia	
November 16,	On the Hypothesis of Equality of Probability	Seminar of the Ilia Vekua Institute of Applied Mathematics,	
2016	Densities	TSU, Tbilisi, Georgia	
January 25–27,	Integral Functionals of the Density Function	4th Scientific Conference of the Faculty of Exact and Natural	
2016		Sciences, TSU, Tbilisi, Georgia	
February 7–10,	On a Criterion for Testing the Hypothesis of	5th Scientific Conference of the Faculty of Exact and Natural	
2017	Equality of Densities	Sciences, TSU, Tbilisi, Georgia	
September 4–8,	On the Integral Square Deviation of Kernel	8th Joint International Conference of the Georgian	
2017	Density Estimators in p≥2 Independent	Mathematical Union & the Georgian Union of Mechanics,	
	Samples	Batumi, Georgia	
February 7–10,	On the Deviations of Kernel Density	5th Scientific Conference of the Faculty of Exact and Natural	
2017	Estimators in	Sciences, TSU, Tbilisi, Georgia	
	p≥2 Independent Samples		
April 19–21,	On the Deviations of Kernel Density	XXXI Enlarged Sessions of the Seminar of the Ilia Vekua	
2017	Estimators in	Institute of Applied Mathematics, TSU,	
	p≥2 Independent Samples	Tbilisi, Georgia	
November 15,	On the Wolverton–Wagner Nonparametric	Session of the Seminar of the Ilia Vekua Institute of Applied	
2017	Estimation of the Probability Density	Mathematics, TSU,	
	Function	Tbilisi, Georgia	
September 3–8,	Professor Gvanji Mania – 100th Anniversary	9th International Conference of the Georgian Mathematical	
2018		Union, Batumi–Tbilisi, Georgia	
February 12–15,	On the Estimation of the Odds-Ratio Using	6th Scientific Conference of the Faculty of Exact and Natural	
2018	Kernel Estimation of the Regression	Sciences, TSU, Tbilisi, Georgia	
	Function		
February 12–15,	On the Wolverton–Wagner Estimation of	6th Scientific Conference of the Faculty of Exact and Natural	
2018	the Probability Density Function	Sciences, TSU, Tbilisi, Georgia	
April 18–20,	On the Nonparametric Estimation of the	XXXII International Enlarged Sessions of the Seminar of the Ilia	
2018	Bernoulli Regression Function	Vekua Institute of Applied Mathematics (IAM), Tbilisi, Georgia	
September 3–8,	On a Criterion for Testing Homogeneity	9th International Conference of the Georgian Mathematical	
2018		Union, Batumi-Tbilisi, Georgia	
September 3–8,	Some Goodness-of-Fit Criteria for the	9th International Conference of the Georgian Mathematical	
2018	Probability Density Function Based on	Union, Batumi-Tbilisi, Georgia	
	Wolverton-Wagner Type Estimators		
July 16-18, 2018	On some goodness-of-fit tests based on	International Conference on Probability Theory and	
	Wolverton-Wagner type estimates of	Mathematical Statistics Dedicated to 100th Anniversary of	
	distribution	Professor Gvanji Mania, Tbilisi, Georgia,	
September 19-	On Some Goodness-of-Fit Tests Based on	The Third International Conference "Modern Problems in	
21,	Wolverton-Wagner Type Estimates of	Applied Mathematics" Dedicated to the Centenary of Ivane	
2018	Distribution Density	Javakhishvili Tbilisi State University and 50th Anniversary of	
E-L 11 15	On the Limit Divided of the College	Ilia Vekua Institute of Applied Mathematics, Tbilisi, Georgia	
February 11–15,	On the Limit Distribution of the Integral	7th Annual Faculty Scientific Conference in Exact and Natural	
2019	Square Deviation of the Wolverton–Wagner	Sciences,	
	Type Estimator	Tbilisi, Georgia	
n1 44.4=		http://conference.ens-2019.tsu.ge/	
February 11–15,	On Some Goodness-of-Fit Criteria Based on	7th Annual Faculty Scientific Conference in Exact and Natural	
2019	the Wolverton–Wagner Type Estimator	Sciences,	
		Tbilisi, Georgia	

		http://conference.ens-2019.tsu.ge/	
April 23–25,	On the Limit Distribution of the Integral	XXXIII International Enlarged Sessions of the Seminar of the	
2019	Square deviation of the Wolverton-Wagner	Ilia Vekua Institute of Applied Mathematics,	
	Type Estimator	Tbilisi, Georgia	
		http://www.viam.science.tsu.ge/enlarged/2019	
April 23–25,	On Some Goodness-of-Fit Criteria Based on	XXXIII International Enlarged Sessions of the Seminar of the	
2019	the Wolverton-Wagner Type Estimator	Ilia Vekua Institute of Applied Mathematics,	
		Tbilisi, Georgia	
		http://www.viam.science.tsu.ge/enlarged/2019	
September 3–8,	On the Estimation of the Bernoulli	9th International Conference of the Georgian Mathematical	
2019	Regression Function Using Bernstein	Union, Batumi–Tbilisi, Georgia	
	Polynomials	http://www.gmu.ge/Batumi2019/ENG/index.html	
September 3–8,	On the Limit Distribution of the Integral	9th International Conference of the Georgian Mathematical	
2019	Square Deviation of the Nonparametric	Union, Batumi–Tbilisi, Georgia	
	Estimator of the Bernoulli Regression	http://www.gmu.ge/Batumi2019/ENG/index.html	
	Function		
September 9-13,	On the integral square measure of	International Conference on Probability Theory and Statistics	
2019	deviation of one nonparametric estimator	Dedicated to the 75th Birthday of Professor Estate V.	
_017	of the Bernoulli regression	Khmaladze, Tbilisi, Georgia,	
	or one germann regression	http://khmaladze-75-tbilisi-2019.tsu.ge	
September 23-	On the limit distribution of the integral	The Fourth International Conference on Applications of	
26,	square deviation of a nonparametric	Mathematics and Informatics in Natural Sciences and	
2019	estimator of the Bernoulli regression	Engineering, AMINSE 2019, Tbilisi, Georgia,	
2017	function for one sample and two	http://www.viam.science.tsu.ge/aminse2019/	
	independent samples	nttp.//www.viain.science.tsu.ge/aininse2017/	
February 3–7,	On the Limit Distribution of the Integral	8th Annual Faculty Scientific Conference in Exact and Natural	
2020	Square Deviation of the Nonparametric	Sciences, Tbilisi, Georgia	
2020	Estimator of the Bernoulli Regression	http://conference.ens-2020.tsu.ge/	
	Function in the Two-Sample Case	http://comercince.ens-2020.tsu.ge/	
February 3–7,	On the Limit Distribution of the Integral	8th Annual Faculty Scientific Conference in Exact and Natural	
2020	Square Deviation of the Nonparametric	Sciences, Tbilisi, Georgia	
2020	Estimator of the Bernoulli Regression	http://conference.ens-2020.tsu.ge/	
	Function	http://comercince.ens-2020.tsu.ge/	
April 23–25,	On the Estimation of the Bernoulli	XXXIV International Enlarged Sessions of the Seminar of the	
April 23–23, 2020	Regression Function Using Bernstein	Ilia Vekua Institute of Applied Mathematics,	
2020	Polynomials	Tbilisi, Georgia	
	1 Olynomials	http://www.viam.science.tsu.ge/enlarged/2020	
April 22 25	On the Chi-Square Test for Homogeneity	XXXIV International Enlarged Sessions of the Seminar of the	
April 23–25, 2020	When Both the Number of Observations and	Ilia Vekua Institute of Applied Mathematics,	
2020	the Number of Intervals Increase	Tbilisi, Georgia	
Contombay 21	Simultaneously On nonparametric keynel type estimate	http://www.viam.science.tsu.ge/enlarged/2020	
September 21-	On nonparametric kernel-type estimate	Scientific Conference "Modern Problems of Stochastic Analysis"	
22,	of the Bernoulli regression function	Dedicated to the 100th Anniversary of the Birth of Academician	
2020 Sontombor 25	On the estimating the Downser!!	S. Kh. Sirajdinov, Tashkent, Uzbekistan	
September 25,	On the estimating the Bernoulli	International Conference in "Modern Stochastic Models and	
2020	regression function using Bernstein	Problems of Actuarial Mathematics", Karshi, Uzbekistan	
NI 1 10	polynomials		
November 19–	On the Estimation of the Bernoulli	Georgian-American University Conference	
20, 2020	Regression Function Using Bernstein	"Applications of Stochastic Processes and Mathematical	
	Polynomials	Statistics in Financial Economics and Social Sciences, V", Tbilisi,	
		Georgia	

April 21-23,	On the one nonparametric estimator of	XXXV International Enlarged Sessions of the Seminar of Ilia	
2021	the Poisson regression function	Vekua Institute of Applied Mathematics of Ivane Javakhisvili	
		Tbilisi State University, Tbilisi, Georgia,	
		http://www.viam.science.tsu.ge/enlarged/2021/	
August 23-27,	On the one nonparametric estimator of the	XI International Conference of the Georgian Mathematical	
2021	Bernoulli regression function	Union, Batumi, Georgia,	
		http://gmu.gtu.ge/Batumi2021/index.html	
June 16-19, 2021	On the One Nonparametric Estimate of	The Fifth International Conference on Applications of	
)dire 10 15, 2021	Poisson Regression Function	Mathematics and Informatics in Natural Sciences and	
	1 olsson regression runerion	Engineering Dedicated to the 25th Anniversary of Foundation	
		Tbilisi International Centre of Mathematics and Informatics	
		(TICMI) AMINSE5, Tbilisi, Georgia	
December 15-	On a Nonparametric Estimation of the	Georgian-American University Conference	
	_	,	
16, 2021	Poisson Regression Function	"Applications of Stochastic Processes and Mathematical	
		Statistics in Financial Economics and Social Sciences, VI",	
T.1 00.01		Tbilisi, Georgia	
February 20-21,	On the integral square deviation between	Scientific Conference "Actual problems of stochastic analysis",	
2021	two kernel type estimators of the	Dedicated to the 80th Anniversary of the Birth of Academician	
	Bernoulli regression functions for the	Formanov Sh. K., Tashkent, Uzbekistan,	
	group data	https://pps.kaznu.kz/kz/Main/FileShow2/186369/127/3/928/2021	
June 1-4, 2021	On the estimate of the Bernoulli	Conference "Modern Stochastics: Theory and Applications V"	
	regression function International	(MSTA-V-2021), Kyiv, Ukraine,	
		http://probability.univ.kiev.ua/msta5	
June 29 - July	On the estimate of the Bernoulli	Fifth International Webinar On Recent Trends In Statistical	
02, 2021	regression function	Theory And Applications-2021 (WSTA-2021), Trivandrum,	
		India	
December 15-19,	Nonparametric Estimate of Poisson	International Conference under the Title "Seventh International	
2021	Regression Function	Conference on Statistics for Twenty-first Century -	
		2021 (ICSTC-2021)", Trivandrum, India	
April 19–21,	On the Estimation of the Bernoulli	XXXVI International Enlarged Sessions of the Seminar of the	
2022	Regression Function Using Bernstein	Ilia Vekua Institute of Applied Mathematics,	
	Polynomials for Grouped Data	Tbilisi, Georgia	
		http://www.viam.science.tsu.ge/enlarged/2022/	
August 29 –	On the one nonparametric estimate of	XII International Conference of the Georgian Mathematical	
September 3,	Poisson regression function	Union, Batumi, Georgia,	
2022		http://gmu.gtu.ge/Batumi2022/proge.html	
ChatGPT said:	On a New Method for Testing the Equality	Applications of Stochastic Processes and Mathematical Statistics	
November 24–	Hypothesis of Two Bernoulli Regression	in Financial Economics and Social Sciences VII	
25, 2022	Functions for Grouped Data	Georgian-American University, Tbilisi, Georgia	
	•	https://www.gau.edu.ge/ka/research/business-research/center	
December 21-	On a Nonparametric Estimation of the	Conference Dedicated to the Memory of Academician Niko	
22, 2022	Bernoulli Regression Function	Vakhania "Analysis, Stochastics, Computing – 2022" (ASC –	
,	Join out regression runesson	2022), Tbilisi, Georgia	
		https://micm.edu.ge/vakhania90	
September 26-	On the one nonparametric estimate of	International Conference – The Limit Theorems of Probability	
28, 2022	Poisson regression function	Theory and Mathematical Statistics, Romanovsky Institute of	
_0, _0	1 0.00011 10g.coololl function	Mathematics of the Academy of Sciences of Uzbekistan and	
		Steklov Mathematical Institute of the Academy of Sciences of	
		Russian Federation, Tashkent, Uzbekistan,	
D 15 10	On the area new at 1 feet	http://www.ltps-2022.nuu.uz/eng/	
December 15-19,	On the one new method of testing	Eighth International Conference on Statistics for Twenty-first	
2022	hypothesis of equality two Bernoulli	Century-2022 (ICSTC 2022)" organized by International	
	regression functions for group	Statistics Fraternity (ISF), Kerala, India,	

observations	https://sites.google.com/view/icstc2022?pli=1

## 7. Inventions (Author's Certificate, Patents)

Years	Name

8. International and Local Scientific grants

Years	Name	
1998-2000	Grant #10, Ivane Javakhishvili Tbilisi State University – Some Problems of Mathematical Physics, Regression	
	Analysis, and Applications in Stochastic Analysis	
2005–2006	Ministry of Education and Science of Georgia, Project #37 – Stochastic Analysis and Applications in Financial	
	Mathematics	
2006-2009	Shota Rustaveli National Science Foundation of Georgia, Grant #GNSF/ST06/3-039 – Nonparametric	
	Estimation of Density and Regression Functions, Stochastic Analysis, and Applications in Financial	
	Mathematics	
2010-2011	Shota Rustaveli National Science Foundation of Georgia, Grant #GNSF/ST09_383_3-106 – Some Constructions	
	in Stochastic Analysis and Statistical Decision Making	
2013-2014	Shota Rustaveli National Science Foundation of Georgia, Grant #GNSF/STFR/308/5-104/12 – Some Problems of	
	Statistical Estimation and Stochastic Analysis	

9. Scientific-Commercial Activity, Implementation

Years	Name

#### 10. Other Activities

	Name	Years
Supervision of Theses work	Iosif Melamed – "Fisher Information	1975
_	on Location and Scale Parameters	
	Contained in Certain Linear Spaces,	
	and Equivalent Estimation of	
	Parameters in Large Samples" –	
	Candidate Dissertation	
	Tristan Buadze – "Nonparametric	1982
	Estimation of Multivariate Density" –	
	Candidate Dissertation	
	Mamuka Nadareishvili – "On	1983
	Nonparametric Kernel Estimates of	
	the Probability Density and	
	Regression Function" – Candidate	
	Dissertation	
	Revaz Absava – "On Nonparametric	1986
	Kernel Estimates of the Probability	
	Density in the Multivariate Case" –	
	Candidate Dissertation	
	Mzevinari Patsatsia – "On Teaching	2004
	Elements of Probability Theory in	
	Secondary School" – Candidate	
	Dissertation	
	Tsiala Dzidziguri – "Methodology for	2005
	Implementing Interdisciplinary	
	Connections in Natural Science	
<u> </u>	Specialties" – Candidate Dissertation	

	Ia Bokuchava – "Optimal Stopping of	2006
	Stochastic Processes and Modeling of	
	American Option Pricing" – Candidate	
	Dissertation	
	Revaz Absava – "Nonparametric	2004
	Estimation of Functional	
	Characteristics of the Distribution	
	Law and Its Applications in	
	Classification and Identification	
	Problems" – Doctoral Dissertation	
	Aleksandre Tkeshelashvili – "Study	2011
		2011
	and Applications of Certain Properties	
	of Random Measures" – Academic	
	Doctor (Ph.D.)	2015
	Dimitri Arabidze – "On Integral	2013
	Functionals of the Regression	
	Function" – Academic Doctor (Ph.D.)	0040
	Aleksandre Sborshikov –	2019
	"Probabilistic and Statistical Modeling	
	of Certain Seismic Processes" –	
	Academic Doctor (Ph.D.)	
Supervision of Master's Theses	Inga Kikvidze – "Problems of	2004
	Estimating the Distribution Density	
	and Regression Function" – Master's	
	Thesis	
	Tamar Megrelishvili – "On Kernel	2005
	Estimation of Distribution Density" –	
	Master's Thesis	
	Medea Otinashvili – "Construction of	2006
	Confidence Intervals for Distribution	
	Density and Hypothesis Testing for	
	the Regression Function" – Master's	
	Thesis	
	Gocha Gabunia – "On Nonparametric	2009
	Statistical Estimators" – Master's	
	Thesis	
	Ekaterine Tskhipurishvili –	2012
	"Application of Smooth Measures in	2012
	Statistics" – Master's Thesis	
	Giorgi Narimanidze – "Kernel	2013
	~	2010
	Estimates of the Density Function and	
	Properties of the Integral Functional	
	Obtained by Substitution" – Master's	
	Thesis	
Participation in International, State		
and Regional Programs		

11. Membership in international scientific organizations

Years	Name	
Since 1996	Member of the International Statistical Institute	

#### 12. Awards and Prizes

Date	Name of Awards, Prizes	
1990	Ilia Vekua Prize of the Georgian Academy of Sciences	
1996	Ivane Javakhishvili Medal of Ivane Javakhishvili Tbilisi State University	
2003	Order of Honor	
2013	Order of Honor	

#### 13. Honorary Title

Date	Honorary Title

**p.s.** The incomplete qualitative and quantitative characteristics of the recognition of Prof. E. Nadaraya's contribution to science are as follows:

- Part of E. Nadaraya's scientific results are included in up to 100 monographs and textbooks in mathematics (see: <a href="http://www.books.google.com/books?q=nadaraya-watson">http://www.books.google.com/books?q=nadaraya-watson</a>);
- The Nadaraya–Watson formula is applied in various scientific articles and monographs, especially in economics and finance (for example, see on Google: Nadaraya–Watson Estimator in Economics and Finance);
- E. Nadaraya's results have also been incorporated into lecture courses (for example, see on Google: Mini-course "Nonparametric Curve Estimation", Lecture 3, September 18, 2014; CSE 6740 Lecture 7 Georgia Institute of Technology, and others). A significant part of Elizbar Nadaraya's main results is presented in full in more than 100 scientific monographs and textbooks (<a href="http://www.books.google.com/books?q=nadaraya-watson">http://www.books.google.com/books?q=nadaraya-watson</a>).

Two of E. Nadaraya's works are listed on the website of the SIAM journal *Theory of Probability and Its Applications* among the **top 10 most popular articles ever published** in this journal (with high scores): <a href="http://www.mathnet.ru/php/tvp">http://www.mathnet.ru/php/tvp</a>.