



Name	Tetiana Rvachova
Position, Department/Faculty	Associate Professor at the Department of Higher Mathematics and System Analysis/Faculty of Rocket and Space Engineering
Academic Degree, Academic Title	PhD Associate Professor
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ResearchGate:	https://www.researchgate.net/profile/Tetiana-Rvachova

EDUCATION:

Basic education (university, major, year of graduation):

Master of Science in Applied Mathematics
V.N. Karazin Kharkiv National University, [1995-2000]

Postgraduate/Doctoral studies:

PhD in Mathematics
Ministry of Education and Science [14/04/2006]

Additional training, certification programs:

Certificate of Participation in the online course: "Big Course about AI in Education"

WORK EXPERIENCE:

Professional Career (Workplace, Years, Position):

**Associate Professor of the Department of Higher Mathematics and System Analysis
National Aerospace University – Kharkiv Aviation Institute** [2011 – Current]
research activity, teaching (Higher Mathematics, Calculus, Financial Mathematics, Theory of Probability and Mathematical Statistics, Mathematical Logic)

**Senior Lecturer of the Department of Higher Mathematics
National Aerospace University – Kharkiv Aviation Institute** [2005-2011]
research activity, teaching (Higher Mathematics, Calculus, Financial Mathematics, Theory of Probability and Mathematical Statistics)



Assistant Professor of the Department of Higher Mathematics
National Aerospace University – Kharkiv Aviation Institute [2000-2005]
research activity, teaching (Higher Mathematics, Calculus)

Teaching Experience:

Teacher of the Department of Higher Mathematics/ **Department of** Higher Mathematics and System Analysis

National Aerospace University – Kharkiv Aviation Institute [2000 – Current]

Teaching courses: Higher Mathematics, Calculus, Financial Mathematics, Theory of Probability and Mathematical Statistics, Mathematical Logic

RESEARCH ACTIVITIES:

Main Research Areas:

Calculus (atomic functions, generalized Taylor series)

Number of Publications (Scopus, WoS, others):

Over 20 scientific publications, including indexed articles in Scopus database

Participation in Scientific Conferences:

Participant of more than 10 scientific conferences

TEACHING ACTIVITIES:

Courses Taught: Higher Mathematics, Calculus, Financial Mathematics, Theory of Probability and Mathematical Statistics, Mathematical Logic

Methodological Materials, Textbooks:

1. Mathematical Models of the Insurance Business and Financial Mathematics: Textbook / I.V. Brysina, V.O. Makarichev, T.V. Rvachova, Ye.P. Tomilova; Ministry of Education and Science of Ukraine, National Aerospace University named after N. Ye. Zhukovsky; Kharkiv Aviation Institute. – Kharkiv: National Aerospace University named after N. Ye. Zhukovsky "Kharkiv Aviation Institute", 2021. – 90 p. (in Ukrainian)
2. Introductory Course in Elementary Mathematics. O.H. Nikolaev, K.P. Barakhov, I.V. Brysina et al. – Kharkiv: National Aerospace University "KhAI", 2011. – 64 p. (in Ukrainian)
3. K.P. Barakhov, I.V. Brysina, O.V. Holovchenko, N.V. Drashpul, O.H. Nikolaev, T.V. Rvachova, Ye.P. Tomilova, V.V. Khomenko, Yu.A. Shcherbakova. Elementary Mathematics in Examples and Problems. – Textbook. – Kharkiv: National Aerospace University named after N.Ye. Zhukovsky "Kharkiv Aviation Institute", 2016. – 196 p. (in Ukrainian)





PROFESSIONAL ACHIEVEMENTS AND AWARDS:

Distinctions, Awards, Prizes:

Winner of the category “Best Young Researcher of Kharkiv Region”, 2007

Membership in Professional Associations:

Is a full member of the PUBLIC ORGANIZATION “UKRAINIAN SCIENTIFIC AND EDUCATIONAL IT SOCIETY”

SELECTED PUBLICATIONS:

Key Articles (Scopus, WoS, others):

T.V. Rvachova On Hermitian interpolation using atomic function / V.O. Rvachov, T.V. Rvachova, Ye.P. Tomilova // KHAІ. RECS. – 2010, №4(45). – p.100-104.

T.V. Rvachova On the construction of multimodal multiparametric exponential families of probability laws / V.O. Rvachov, T.V. Rvachova, Ye.P. Tomilova // KHAІ. RECS. – 2011, №4(52). – p.72-76.

T.V. Rvachova Application of atomic generalized Taylor series to the solution of integral equations of electrodynamics and antenna theory / V.O. Rvachov, T.V. Rvachova, Ye.P. Tomilova // KHAІ. RECS – 2013. №1 (60). – p. 7-14.

T.V. Rvachova Birkhoff interpolation by quartic polynomial splines / V.O. Rvachov, T.V. Rvachova, Ye.P. Tomilova // KHAІ. RECS. – 2015, № 1 – p.33-38.

T.V. Rvachova Finding Antiderivatives with the Help of the Generalized Taylor Series / V.O. Rvachov, T.V. Rvachova, Ye.P. Tomilova // KHAІ. Open information and computer integrated technologies. – 2016. № 73. – p. 52-58.

T.V. Rvachova / V.O. Rvachov, T.V. Rvachova, Ye.P. Tomilova // Application of atomic wavelets and atomic Birkhoff — Taylor series to numerical solving of Fredholm integral equations of the second kind, XXII All-Ukrainian scientific conference “Modern problems of applied mathematics and informatics” APAMCS-2016, 5-7 Oct. 2016, Lviv LNU, p. 16-17.

T.V. Rvachova Finding antiderivatives with the help of the atomic generalized Taylor series / V.O. Rvachov, T.V. Rvachova, Ye.P. Tomilova // 5th International Conference for Young Scientists on Differential Equations and Applications dedicated to Ya. B. Lopatynsky November 9-11. – 2016. Kyiv. Abstracts.

T.V. Rvachova Application of the Generalized Taylor – Birkhoff Series for Solving of the Initial Value Problem for Ordinary Differential Equations /V.O. Rvachov, T.V. Rvachova, Ye.P. Tomilova // KHAІ. Open information and computer integrated technologies. – 2018, № 79. – p. 153-161.

T.V. Rvachova “Tomic Functions and Lacunary Interpolation Series in Boundary Value Problems for partial derivatives equations and image processing” / V.O. Rvachov, T.V. Rvachova, Ye.P. Tomilova // KHAІ. RECS, 2020, №1(93), 14 p.





ADDITIONAL INFORMATION:

Language Proficiency:

Ukrainian, English

IT Skills:

Microsoft Office / Microsoft Excel / Zoom / Google Drive / Google Meet / Organizational and planning skills

