



**TEMIRKHANOVA  
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Associate Professor of the  
Department of Fundamental  
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**Professional experience:**

- Since 2009 to present time. Associate professor of the Department of Fundamental Mathematics, Faculty of Mechanics and Mathematics, L.N. Gumilyov ENU.  
-2006-2009. PhD student of the L.N. Gumilyov ENU.  
- 2002-2005. Senior teacher of the Department of Biophysics and Informatics, Kazakh State Medical Academy;  
- 2001-2002. Teacher of the Department of Mathematics, North Kazakhstan State University;  
-1997-2001. Learning in North Kazakhstan State University (NKSU), Petropavl.

**Scientific degree, title:**

PhD in the subject Mathematics (2009), Astana, Kazakhstan.  
Speciality: 01.01.00-Mathematics;  
PhD in the subject Mathematics (2015), Lulea University of Technology, Sweden.  
Associate Professor (docent) № 0000158, 27.11.2020. (order № 483).

**Scientific interests:**

Functional analysis. Theory of linear operators. Problems of boundedness and compactness of the matrix and integral operators in functional spaces

**Research Grants:**

-*Leading Researcher in the project* «Weighted function spaces, weighted estimates of integral operators and their applications» grant funding (2018-2020);  
- *Chief Researcher* in the project «Properties of matrix operators in weight sequences and their applications» grant funding (2015-2017);  
-*Leading Researcher in the project* «The exact characteristics of integral operators in functional spaces and their applications» grant funding (2015-2017);  
-*Leading Researcher in the project* «Qualitative and spectral characteristics of linear, quasi-linear differential and difference equations» grant funding (2013-2015);  
-*Leading Researcher in the project* «Qualitative characteristics of singular integral and differential operators in classical and quantum analysis» grant funding (2012-2014);  
- *Chief Researcher* in the project «Investigation of additive and multiplicative Hardy type inequalities» grant funding (2012-2014)  
- *Junior Researcher* in the project «Weighted inequalities and their applications in the theory of weighted embedding of the integral and differential operators» (2009-2011).

**Delivered courses:**

Functional analysis (B). Ordinary differential equations (B). Theory of operators (B). Selected Chapters of Functional Analysis (B) Weighted inequalities of the Hardy type (M). Weighted estimates of matrix operators (D).

**Publications:**

1. A.M. Temirkhanova, A.T. Beszhanova, Boundedness and compactness of a certain class of matrix operators with variable limits of summation // Eurasian Mathematical Journal. –2020. –V. 11, № 3. –P. 66-75. (CiteScore (Scopus) – 0.8; процентиль-37);
2. A. Kalybay, R. Oinarov, A. Temirkhanova, Integral operators with two variable integration limits on the cone of monotone functions, Journal of Mathematical

<p><b>Awards:</b></p> <ul style="list-style-type: none"> <li>- Based on the results of the 1<sup>st</sup> semester 2017-2018 academic year the winner of the Tokyo Boeki scholarship as the best doctoral student;</li> <li>- Laureate of the State Youth Prize "Daryn" of the Government of the Republic of Kazakhstan (2014);</li> <li>- Owner of the state scientific scholarship in 2020.</li> <li>- The best teacher of the university-2020.</li> </ul>	<p>Inequalities -2019 -V. 13, № 1 –C. 1-16, JCR Impact factor 0,849 Q2.</p> <ol style="list-style-type: none"> <li>3. A. Kalybay, R. Oinarov, D. Karatayeva, A. Temirkhanova, Oscillation of a second order half-linear difference equation and the discrete Hardy inequality // Electronic Journal of Qualitative Theory of Differential Equations. –2017. № 43, 1-16. (Impact Factor JCR-2017 – 0,881).</li> <li>4. А.А. Калыбай, Р. Ойнаров, А.М. Темирханова, Оценки интегральных операторов с переменными пределами для монотонных функций // Математический журнал. Алматы -2017–Т. 17, № 3. –С. 71-83.</li> <li>5. А.О. Baiarystanov, L.-E. Persson, S. Shaimardan, A. Temirkhanova, Some new Hardy type inequalities in q-analysis // Journal of Mathematical Inequalities –2016. – Vol. 10, № 3. –P. 761-781. (Impact Factor SJR-2017 – 0,8).</li> <li>6. A. Kalybay, L.-E. Persson, A. Temirkhanova, A new discrete Hardy-type inequality with kernels and monotone functions // Journal of Inequalities and Applications. – 2015. – Vol. 321. – P. 1-10. DOI 10.1186/s13660-015-0843-9 (Impact Factor JCR-2017 – 0,966).</li> <li>7. А.А. Калыбай, Р. Ойнаров, А.М. Темирханова, Boundedness of <math>n</math> – multiple discrete Hardy operators with weights for <math>1 &lt; q &lt; p &lt; \infty</math> // Journal of Function Spaces and Applications, 2013, Article ID 121767, 9 pages. Impact Factor: 0,5</li> <li>8. А.О. Байарыстанов, А.М. Темирханова, С.Шаймардан, Весовое неравенство Харди в квантовом анализе // Вестник КарГУ. –2013. –Т.70. – P. 35-45</li> <li>9. Zh.A. Taspaganbetova, A.M. Temirkhanova, Criteria on boundedness of matrix operators in weighted spaces of sequences and their applications// Annals of Functional Analysis. – 2011. - V. 1. – P. 114-127</li> <li>10. Zh.A. Taspaganbetova, А.М. Temirkhanova, Boundedness and compactness criteria of a certain class of matrix operators// Mathematical Journal. – Almaty, 2011. - V. 11. – P. 125-139.</li> <li>11. R. Oinarov, L.-E. Persson, A.M. Temirkhanova, Weighted inequalities for a class of matrix operators: the case <math>p \leq q</math> // Mathematical Inequalities and Applications. – Croatia, 2009. – V. 11. - № 4. – P. 891-903. JCR IF-0.588.</li> <li>12. R. Oinarov, A.M. Temirkhanova, Boundedness and compactness of a class of matrix operators in weighted sequence spaces // Journal of Mathematical Inequality. – Croatia, 2008. – V.2. - № 4. – P. 555-570. JCR IF-0.704</li> </ol>
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