













JOURNAL OF MATHEMATICAL SCIENCES (SERIES A)



The Series A in the Journal of Mathematical Sciences was launched in 2021. At the plenary opening of the 13th ISAAC Congress (August 2–August 6, 2021, Ghent, Belgium) Dr. Thomas Hempfling, Editorial Director, Mathematics Birkhäuser, announced the project and offered to Alexey Karapetyants to be the Editor-in-Chief of the journal "Journal of Mathematical Sciences" Series A. Clemens Heine, Executive Editor, Applied Mathematics / Computer Sciences, Birkhäuser, supervised the start of the project. In 2021, the editorial board of the journal JMS (Series A) was formed. It consists of leading scientists from different countries.

Journal Metrics

2023 SPEED	2023 USAGE	IMPACT	
 Submission to first decision (average) 7.7 days	 Downloads 305,411	 Impact factor N/A (2022)	5 year Impact factor N/A (2022)
 Submission to first decision (median) 4 days	 LinkOut statistics N/A	 CiteScore 0.7 (2023)	
 Acceptance to publication (average) 123.6 days	 Social media mentions 64	 Source normalized impact per paper 0.523 (2023)	
 Acceptance to publication (median) 69 days		 h5 Index 19 (2022)	
		 Overall author satisfaction 93% (2023)	

Special Issues 2022

1 A Special Issue in honor of Prof. Stefan Samko on the occasion of his 80th birthday

This special issue of the Journal of Mathematical Sciences (Volume 266 Number 3, 2022) has been established in honor of Professor Stefan Samko, Doctor of Sciences, on the occasion of his 80-th birthday. This thematic collection was preceded by the activities within the framework of the OTHA international conference in 2021 which was dedicated to the 80th anniversary of S.Samko. Guest Editors: Alexandre Almeida (Portugal), Zalina Kusraeva (Russia) and Humberto Rafeiro (UAE).

See also Editorial by Alexey Karapetyants

<https://link.springer.com/article/10.1007/s10958-022-06026-0> , and the review article by the Guest Editors <https://link.springer.com/article/10.1007/s10958-022-05990-x>.



Alexandre Almeida
University of Aveiro, Portugal



Zalina Kusraeva
Southern Federal University, Russia



Humberto Rafeiro
United Arab Emirates University, UAE



2 Special issue of the Journal of Mathematical Sciences dedicated to Professor N.Karapetiants. This Special Issue is the first in a series of direct submissions (Series A).



This special issue (Volume 266 Number 1, 2022) of the Journal of Mathematical Sciences (Series A) has been established in honor of Professor Nikolay Karapetyants (1942-2005), Doctor of Sciences, on the occasion of 80-th anniversary from the date of his birthday. This thematic collection was preceded by the activities within the framework of the OTHA international conference in 2022 which was dedicated to Professor N.Karapetiants. There were no officially appointed Guest Editors. However, as informal Guest Editors we thank to Professors O.G.Avsyankin and S.G.Samko who wrote a great dedication

letter to the SI, see <https://doi.org/10.1007/s10958-022-06037-x> .

See also the Editorial by Alexey Karapetyants

<https://doi.org/10.1007/s10958-022-06025-1> . For more information, please visit <https://msrn.sfedu.ru/editorial/books/> .



Stefan Samko
Algarve University,
Portugal



Oleg Avsyankin
Southern Federal University,
Russia



Special Issues 2023

In 2023, we were working on 6 Special Issues.

1 Mathematical Analysis and Differential Equations.

This collection is the result of a remarkable scientific conference “Mathematical analysis and differential equations”, held in Tsaghkadzor (Armenia) on September 19-23, 2022. The organizers made this scientific event unforgettable for all participants from Armenia, Russia, Germany, Belgium, France, Portugal, Ecuador and some other countries. See Editorial by Alexey Karapetyants <https://link.springer.com/article/10.1007/s10958-023-06654-0>.



Guest Editors:



Gegham Gevorkyan
National Academy of Sciences of Armenia, Armenia



Tigran Harutyunyan
Yerevan State University, Armenia



Aghavard Khachatryan
Armenian National Agrarian University,



2 Special Issue in honor of Professor Anatoly G. Kusraev on the occasion of his 70th birthday.

Guest Editor: Semen S. Kutateladze (Russia)

From the Editorial letter by Professor Semen S. Kutateladze: “Anatoly Kusraev belongs to the school of Leonid Kantorovich, i.e., Kusraev’s research traverses tracts in the general direction of the school. Kantorovich entered science under the influence and guidance of Georgy Fikhtengoltz and Vladimir Smirnov in the first third of the twentieth century. These years brought about the revolutionary changes in mathematics which underwent transformations in the frameworks of the axiomatic method and set-theoretic stance.



General topology and functional analysis sprang to life, and all branches of mathematics transformed drastically. Scholars discovered various combinations of mathematical structures and searched for applications to the new problems of science and technology.” – see more in review paper by S. S. Kutateladze <https://doi.org/10.1007/s10958-023-06815-1>. See also Editorial by Alexey Karapetyants <https://doi.org/10.1007/s10958-023-06261-z>.



Semen Kutateladze
Sobolev Institute of Mathematics,
Russia



3 Operator Theory and Harmonic Analysis in Armenia - Celebrating the 80 anniversary of the National Academy of Sciences of Armenia

This Special Issue is a collection of selected papers from the Workshop OTHA Spring 2023 held from 18 to 22 April 2023 in Yerevan. There were no officially appointed Guest Editors. But we are very glad that the President of the Academy of Sciences of Armenia Prof. Ashot Saghyan, Academician, Doctor of Sciences, supported this issue and provided his greeting to the participants of the issue. The Academy of Sciences of Armenia was established on November 10, 1943, and 23 well-known scientists were elected as founding academicians, including M. Abegyan, the Alikhanyan brothers, R. Acharyan, Av. Isahakyan, V. Hambartsumyan, the Orbeli brothers and others. The first president of the Academy of Sciences was an outstanding scientist, historian, and orientalist Iosif Orbeli. Since then, many great names of researchers from Armenia have been inscribed in the annals of world science thanks to their discoveries and achievements, among them there are many mathematicians who have taken their rightful place among the outstanding scientists - see Editorial

<https://doi.org/10.1007/s10958-023-06583-y> by Alexey Karapetyants and Editorial Letter

<https://doi.org/10.1007/s10958-023-06584-x> by Ashot Saghyan.



Ashot Saghyan,
President NAS RA

4

Selected papers from the XIII Annual International Conference of the Georgian Mathematical Union.

The Annual International Conference of the Georgian Mathematical Union was established in 2010 and has been held traditionally at Batumi Shota Rustaveli State University. Since 2021 the conference has been conducted in a hybrid format. The purpose of the conference is to bring together mathematicians from various fields to present their original research results and provide opportunities to establish new connections within the fields of pure and applied mathematics, as well as science, engineering, and technology. The XIII Annual International Conference of the Georgian Mathematical Union was held on September 4–9, 2023. More than 200 participants from 25 countries took part in this event. 17 Invited Speakers delivered their talks, and 11 sections were presented there. For more information, please see Preface by the Guest Editors <https://doi.org/10.1007/s10958-024-06998-1>.

Guest editors: Alexander Meskhi, David Natroshvili



Alexander Meskhi
*Kutaisi International University,
Georgia*



David Natroshvili
*Georgian Technical University,
Georgia*



5

OTHA 2023: advances on operator theory and harmonic analysis



Guest editors: Armen Vagharshakyan, Zalina Kusraeva, E. K. Narayanan



Armen Vagharshakyan

Institute of Mathematics of NAS RA,
Armenia



Zalina Kusraeva

Southern Federal University,
Russia



E. K. Narayanan

Indian Institute of Science, Bangalore,
India

This Special Issue consists of selected papers from conferences and workshops in the OTHA series, which has become a traditional series that brings together researchers from around the world. See also Editorial by Alexey Karapetyants

<https://link.springer.com/article/10.1007/s10958-024-07126-9>.

During August 20-25, 2023,, the international scientific conference "OTHA-2023: Modern methods, problems and applications of operator theory and harmonic analysis" was held at the Southern Federal University. There were participants from various regions of Russia, as well as from Belarus, Armenia, Serbia, UAE, India, Cameroon, Iran, Ecuador, Italy, Georgia, Tajikistan, and other countries.

During December 17-21, 2023, the international conference "Workshop OTHA Fall 2023" was held at the Sirius educational center in Sochi. Leading experts and young scientists from Moscow, Rostov-on-Don, Kazan, Vladikavkaz, Armenia, Belarus, Mexico, UAE, Uzbekistan, and Georgia took part in the conference.



Special Issues 2024

In 2024, we are working on the following special issues.

1 Fractional order systems and operator theory

This Special Issue will collect papers resulted from modern analysis and applied aspects of fractional dynamic systems and operator theory. The subject of fractional calculus and its potential applications have gained a lot of importance, mainly because it has become a powerful tool with more accurate and successful results in modeling several complex phenomena in numerous seemingly diverse and widespread fields of science and engineering. It was found that various, especially interdisciplinary applications, can be elegantly modeled with the help of fractional derivatives. Since fractional differential equations combined with operator theory, still used perfectly in applied sciences via mathematical modelling, it is very important to focus on the most promising open problems and new directions that were formulated based on the modern techniques and approaches presented recently in the field trying to have interesting and original results in real world.

For more information, please visit <https://link.springer.com/journal/10958/updates/26790152>.

Guest editors: Amar Debbouche, Vladimir E. Fedorov, Muslim Malik.



Amar Debbouche
University of Guelma,
Algeria



Vladimir E. Fedorov
Chelyabinsk State University,
Russia



Muslim Malik
Indian Institute of Technology Mandi,
India

2 Nonlinear Analysis and Applications

This special issue aims to present cutting-edge developments and explore emerging trends in the field of Nonlinear Analysis and its applications. It seeks to promote the practical application of mathematical techniques to address real-world challenges across various scientific disciplines.

For more information, please visit <https://link.springer.com/journal/10958/updates/26958544>.

Guest editors: Erdal Karapinar, Juan Martinez-Moreno, Anita Tomar.



Erdal Karapinar
China Medical University,
Taiwan



Juan Martinez-Moreno
University of Jaen,
Spain



Anita Tomar
Sridev Suman Uttarakhand University,
India

3

Recent advancements in Mathematical Modeling and Simulation

This special issue includes papers on computational mathematics, mathematical modelling, numerical methods, optimization, and simulation. It examines how mathematical models and simulations help solve problems in physics, engineering, biology, economics, environmental sciences, and social sciences. This special issue provides academics, practitioners, and graduate students with the latest mathematical modelling and simulation advances. This special issue may inspire innovation, optimize processes, improve decision-making, and illuminate complex systems across domains.

Guest editors: H.M. Srivastava, Geeta Arora, Mamta Kapoor, Firdous A. Shah.



Dr. H.M. Srivastava

Professor Emeritus, Department of Mathematics and Statistics, University of Victoria, Canada



Dr. Mamta Kapoor

Department of Mathematics, Lovely Professional University, Punjab, India



Dr. Geeta Arora

Department of Mathematics, Lovely Professional University, Punjab, India



Dr Firdous A. Shah

Department of Mathematics, University of Kashmir, Jammu and Kashmir, India

4

Study of Multivariable Functional Equations: Theoretical and Applied Perspectives.

Functional analysis, particularly the study of functional equations and inequalities, is pivotal in articulating social and physical phenomena through mathematical functions. This special issue aims to delve into the intricacies of stability in functional analysis, highlighting the significance of investigating exact and approximate solutions of functional equations. The resolution of unknown functional equations and the exploration of inequalities among proposed functional equations are areas of paramount importance. This issue will thoroughly explore pivotal equations and inequalities instrumental in a wide array of mathematical analysis problems across a vast spectrum of areas within pure and applied mathematics.

Guest editors: Ali Turab, Josué Antonio Nescolarde Selva, Norhayati Rosli, Anum Shafiq.



Ali Turab

School of Software, Northwestern Polytechnical University, China



Norhayati Rosli

Centre for Mathematical Sciences, University Malaysia Pahang Al-Sultan Abdullah, Malaysia



Josué Antonio Nescolarde Selva

Department of Applied Mathematics, University of Alicante, Spain



Anum Shafiq

School of Mathematics and Statistics, Nanjing University of Information Science & Technology, China

5

Selected papers from the XIV Annual International Conference of the Georgian Mathematical Union.

The 2024 edition of International Conference of the Georgian Mathematical Union will be held at Batumi Shota Rustaveli State University, Batumi starting on 02nd September. It is a 6-day event organized by Georgian Mathematical Union. It covers specific areas of Mathematics and Statistics such as General Mathematical Research and Multidisciplinary Events. For more information, please visit <https://gmu.gtu.ge>

Guest Editors: Alexander Meskhi, Anzor Beridze, Giorgi Oniani.



Alexander Meskhi

Kutaisi International University, Batumi Shota Rustaveli State University, Kutaisi International University,
Georgia



Anzor Beridze

Georgia



Giorgi Oniani

Georgia

6

OTHA 2024: advances on operator theory and harmonic analysis

This Special Issue consists of selected papers from conferences and workshops in the OTHA series, which has become a traditional series that brings together researchers from around the world. This year we are focusing on OTHA conference (<https://otha.sfedu.ru/conf2024/>) and also on a workshop OTHA-Fall 2024 (<https://otha.sfedu.ru/workshop-otha-fall-2024/>). For more information, please visit <https://otha.sfedu.ru/>



Changpin Li

Shanghai University,
China



Albert Shiryaev

Moscow State University,
Russia



Zalina Kusraeva

Southern Federal University,
Russia

Also, we are planning the following Special Issues.

7

Special Issue dedicated to memory of Professor Jose Carlos Petronilho.

Professor José Carlos Petronilho, beyond his extraordinary academic and professional career, was an endearing and down-to-earth person, who was always accessible and who amassed encyclopedic knowledge in Analysis. Although his research area is framed in classical analysis, he was a professor of functional analysis at the University of Coimbra for more than a decade, which left a deep mark on a large part of his scientific production.



The Special Issue will collect selected papers from the conference “From Classical to Modern Analysis: In memory of Professor José Carlos Petronilho”, a Satellite Conference of the 9th European Mathematical Congress, June 24-28, 2024, in Sanlúcar de Barrameda (Cádiz, Spain).

For more information, please visit the site of the conference: <https://www.mat.uc.pt/~pgsfop/fcma/> , and: <https://link.springer.com/journal/10958/updates/27263828>.

Guest editors: Fernando León Saavedra, Francisco García Pacheco, Kenier Castillo.



Fernando León Saavedra
University of Cadiz,
Spain



Francisco García Pacheco
University of Cádiz,
Spain



Kenier Castillo
University of Coimbra,
Portugal

8 Perturbations, Asymptotics, and related Tools.

This special issue aims at covering the topics of perturbation and asymptotic problems for elliptic differential equations, and on more abstract and foundational questions that are essential to deal with perturbations and asymptotics. Said topics include (but are not restricted to): perturbations of the domain and/or of the underlying geometric structure; corner singularities and their effects on solutions of BVP; perturbations of the mass and of other parameters; regularity properties of layer potentials and their numerical computations; degenerate, Steklov, nonlinear, and higher order problems. The main objective of this special issue is to include papers from specialists coming from different backgrounds working on similar problems, to exchange ideas and techniques, and to present new challenging problems and open questions. For more information, please visit the site of the conference: <https://sites.google.com/unibas.it/pat2024>

Guest editors: Davide Buoso, Flavia Lanzara, Angelica Malaspina, Paolo Musolino.



Davide Buoso
University of Eastern Piedmont,
Italy



Flavia Lanzara
Sapienza University of Rome,
Italy



Angelica Malaspina
University of Basilicata,
Italy



Paolo Musolino
University of Padua,
Italy

Recent advances in analysis and applied mathematics.

This special issue aims to showcase cutting-edge research at the intersection of theoretical and applied mathematics, with a focus on analysis and its applications in various scientific domains, highlighting impacts on diverse areas such as physics, engineering, biology, finance, and computer science. This special issue will feature original research articles, review papers within analysis and applied mathematics, including but not limited to: Functional Analysis and Operator Theory; Differential Equations and Dynamical Systems; Numerical Analysis and Scientific Computing; Mathematical Modeling and Applications in Science and Engineering. The objectives of this special issue are to: Advance theoretical understanding of fundamental concepts in analysis and applied mathematics; Develop innovative methodologies and algorithms for solving complex mathematical problems; Foster interdisciplinary collaboration between mathematicians and researchers in other fields; Showcase the diverse applications of analysis in addressing real-world challenges.

Guest editors: Alexander L. Skubachevskii, Allaberen Ashyralyev, Abdullah S. Erdogan, Makhmud A. Sadybekov.



Alexander Skubachevskii
RUDN University,
Russia



Abdullah S. Erdogan
Palm Beach State College,
USA



Allaberen Ashyralyev
Bahcesehir University,
Turkiye



Makhmud A. Sadybekov
Institute of Mathematics and Math.
Modeling, Kazakhstan

Special Issue in honor of Professor Albert Shiryayev in the occasion of his 90-th birthday.

This special issue is dedicated to the 90th anniversary of professor Albert Nikolaevich Shiryayev - an outstanding Soviet and Russian mathematician, Academician of the Russian Academy of Sciences. Most of the papers presented in the special issue are related to the topics in which Albert Nikolaevich has obtained his fundamental results - statistical sequential analysis, stochastic decomposition problems, limit theorems for random processes, stochastic analysis, financial mathematics, and others. The authors of the presented works are mainly A.N. Shiryayev's students (under his supervision, 70 scientists have defended their PhDs. 15 of them have later become doctors of sciences).

Guest editors: Igor Pavlov, Alexander Gushchin.



Igor Pavlov
Lomonosov Moscow State University,
Russia



Alexander Gushchin
Steklov Mathematical Institute,
Russia

