

Annual Report of Functional Analysis department for 2022

The staff of “Functional Analysis” department consists of 19 employees including 17 research associates. 8 of them doctor of sciences, professor.

- 1.Aslanov Hamidulla I. doct. ph.m.s.,prof.
- 2.Mammed Bayramoglu. doct. ph.m.s.,prof.sen.r.a.
- 3.Mirzoyev Sabir S. doct. ph.m.s.,prof.sen.r.a.
- 4.Huseynov Hidayet M. doct. ph.m.s.,prof.sen.r.a.
- 5.Gurbanov Veli M. doct. ph.m.s.,prof.sen.r.a.
- 6.Nabiyev Ibrahim M. doct. ph.m.s.,prof.sen.r.a.
- 7.Aliyev Araz R. doct. ph.m.s.,prof.sen.r.a.
- 8.Eyvazov Elsad H. doct. ph.m.s.,ass.prof. sen.r.a.
- 9.Aslanova Nigar M. doct. ph.m.s.,ass.prof. sen.r.a.
- 10.Mukhtarov Fekhreiddin Sh. c.ph.m.s.,lead.r.a.
- 11.Jabrailova Afet N. c.ph.m.s.,lead.r.a.
- 12.Latifova Aygun R. phd in math.,chief.r.a.
- 13.Guliyev Namiq I. c.ph.m.s.,r.a.
- 14.Vahabov Nazim G. chief.r.a.
- 15.Alimardanova Kamilla A. c.ph.m.s.,chief. r.a.
- 16.Osmanli Jalala A. phd in math.,chief. r.a.
- 17.Safarova Aynur N. phd in math.,chief. r.a.
- 18.Iskenderli Guller Z.sen.lab.ass.
- 19.Bayramova Aygun F.sen.lab.ass.

I. Scientific part.

In 2022, in the department, according to the affirmed plan 16 scientific works are carried out on “Spectral analysis of differential operators”.

Theme “Spectral analysis of differential operators”.

1).work: “Occurrence of the resolvent of a clan of higher order operator-differential equations in the σ_p classes.” Ex. doct.ph.m.s., prof. H.I.Aslanov.

Let H be a separable Hilbert space.

In the space $H_1=L_2([0;\pi];H)$

$$l(y) = (-1)^n (P(x)y^{(n)})^{(n)} + Q(x)y$$

differensial expression

$$y(0) = y'(0) = \dots y^{(n-1)}(0) = 0$$

$$y(\pi) = y'(\pi) = \dots y^{(n-1)}(\pi) = 0$$

In this paper, conditions for the discreteness of the spectrum of the operator L are shown and the main equality connecting the eigenvalues, eigenfunctions, and Green's function of the operator is proved. It is proved that the operator is a Hilbert-Schmidt operator.

Articles

1. H. İ. Aslanov, R.F.Hatamova. On the existence and uniqueness of generalized solutions of second order partial operator-differential equations. Azerbaijan Journal of Mathematics ,v.12, №1, January 2022, p.68-79.
2. H.İ.Aslanov, R.F.Hatamova. On the Neuman problem for a second order elliptic partial operator-differential equation in Hilbert space /Transactions of NASA , ser.Phys.Tech.Math.Sci., 42(1),2022, p.1-11.
3. H.İ.Aslanov, R.F.Hatamova.On well-deffined solvability of the Dirichlet problem for a second order elliptic partial operator-differential equation in Hilbert space.Proceeding of the Institute of Mathematics and Mechanics, National Academy of Sciences of Azerbaijan ,volume 48, Number1,2022,p.63-76.

Theses

- 1.Г.И.Асланов, Р.Ф.Гатамова. О задаче Неймона для эллиптического операторно-дифференциального уравнения с частными производными второго порядка в гильбертовом пространстве. Актуальные проблемы математики и информационных технологий. Материалы III Всероссийской

конференции с международным участием. (г.Махачкала издательство ДГУ, 7-9 февраля 2022), с.39-41.

2.Г.И.Асланов,Г.М.Эйвазлы.The asymptotic formula for the sum of the fourth degrees of the negative eigenvalues of the second order differential operator in the semi-axis.(online)International Symposium on Applied Mathematics and Engineering ISAME 22 Yauary 21-23, 2022,Istanbul-Turkey .Abstract Book, p.128

2).work: "Inverse problem of half-axis scattering for a system of Dirac equations with shear coefficients"

Ex: doct. ph.m.s.,prof.sen.r.a.H. M. Huseynov.

In the reporting year, scientific research on the topic was continued, the solution of the basic equation was shown, and the algorithm for potential conservation was given.

Theses

1.Hüseynov H.M., Şamilova R.Ə. "Yarımoxda kəsilən əmsallı ikinci tərtib diferensial tənlik üçün tərs məsələnin həlli algoritmi" . " Tətbiqi riyaziyyatın müasir problemləri" (BDU) Respublika elmi konfransının materialları, Bakı, 2022 (17 may), s. 124-125.

2. Hüseynov H.M., Bağırzadə T.S. "Kəsilmə şərtinə malik Şturm-Liuvill tənliyi üçün səpilmənin tərs məsələsi" / " Tətbiqi riyaziyyatın müasir problemləri" (BDU) Respublika elmi konfransının materialları, Bakı, 2022 (17 may), s. 122-123

3).work: "Effect of the summation rate of the function on the rate of co-accumulation of the spectral separation corresponding to the one-dimensional Schrödinger operator."

Ex: doct. ph.m.s.,prof.sen.r.a. V.M. Kurbanov

This year the summation of spectral separations of ordinary differential operators was investigated. Three theses were published and two articles were submitted for publication.

Articles (submitted to print)

1. Vali M. Kurbanov, Khadija R. Godjaeva, Rahim I. Shahbazov. On absolute and uniform convergence of a biorthogonal series in root functions of an odd order differential operator. // Transactions of NAS of Azerbaijan.
2. Vali M. Kurbanov, Aytakin I. Ismailova. On convergence of spectral expansion in eigen-functions of dirac operator // Proceedings of the Institute of Mathematics and Mechanics, National Academy of Sciences of Azerbaijan.

Theses

1. **Курбанов В.М., Гаджиева Г.Р.** Теорема о по компонентной равномерной равно сходимости для оператора типа Дирака $2m$ -го порядка
//СОВРЕМЕННЫЕ МЕТОДЫ ТЕОРИИ КРАЕВЫХ ЗАДАЧ . Материалы Международной конференции Воронежская весенняя математическая школа ПОНТЯГИНСКИЕ ЧТЕНИЯ—XXXIII Посвящается Юрию Ивановичу Сапронову (75-летию со дня рождения) (3–9 мая 2022 г.) стр.65-67.
- 2.**Курбанов В.М., Годжаева Х.Р.** О скорости равномерной равно сходимости спектрального разложения функции из класса $f(x) \in W^1_p(G)$, $p > 1$, по собственным функциям дифференциального оператора четного порядка с тригонометрическим рядом // СОВРЕМЕННЫЕ МЕТОДЫ ТЕОРИИ КРАЕВЫХ ЗАДАЧ . Материалы Международной конференции Воронежская весенняя математическая школа ПОНТЯГИНСКИЕ ЧТЕНИЯ — XXXIII Посвящается Юрию Ивановичу Сапронову (75- летию со дня рождения) (3–9 мая 2022 г.) с .71-72.
3. **Vali M.Kurbanov., Y.G.Abbasova.** Convergence of the spectral expansion in from the class $W^1_{p,m}(G)$, $1 < p < 2$, in the vector eigen functions of a differential operator of the third order Modern Problems of Mathematics and Mechanics. Proceedings of the International scientific conference devoted to the 110-th anniversary of academician İbrahim İbrahimov Baku, yune 29-July 1, 2022, p. 1265.

4).work: "Regular solution of the boundary value problem for a class of second-order operator-differential equations in Sobolev-type spaces."

Ex: doct. ph.m.s.,prof.sen.r.a.S.S.Mirzoyev

In the report period, regular solvability of a class of boundary value problems was considered for a second order normal operator coefficient differential equation in a semi-axis in Sobolev type spaces.

Let H be a separable Hilbert space.

In the space $L_2[0, \infty); H]$ the boundary value problem

$$\frac{d^2u}{dt^2} + A^2U + A_1 \frac{du}{dt} + A_2U = f(t),$$

$$U(0) = KU$$

is considered. There A is a normal operator acting in the H – space. So, its spectrum is inside certain angle on a complex plane.

5).work: Inverse problem for the non-self-adjoint Sturm-Liouville operator.

Ex: doct. ph.m.s.,prof.sen.r.a.I.M.Nabiev

In 2022, an inverse problem for a not self-adjoint Sturm- Liouville operator was considered on a segment. At first spectral data that uniquely determine this operator were determined and their main properties were studied. The sequence of eigenvalues of two spectral problems were taken as main spectral data. Then a uniqueness theorem and the renewal of the considered operators on these spectral data was proved. Using the proof of this theorem, an algorithm for renewing the coefficients of the differential equation and boundary conditions was constructed.

Articles

1.I.M.Nabiev. Reconstruction of the differential operator with spectral parameter in the boundary condition // Mediterranean Journal of Mathematics, 2022, v. 19, № 3, art. 124, p. 1-14 (Web of Science Impact faktor =1.4, Scopus).

<https://doi.org/10.1007/s00009-022-02053-y>

2.Маммадова Л.И., Набиев И.М. Единственность восстановления оператора Штурма–Лиувилля со спектральным параметром, квадратично входящим в граничное условие // Вестник Томского государственного университета. Математика и механика, 2022, № 79, с. 14–24 (Web of Science, Scopus).

doi: 10.17223/19988621/79/2

3.Mammadova L.I., Nabiev I.M., Rzayeva Ch.H. Uniqueness of the solution of the inverse problem for differential operator with semi-separated boundary conditions. *Baku Mathematical Journal*, 2022, v. 1, № 1, p. 47-52.

DOI: <https://doi.org/10.32010/j.bmj.2022.05>

4.A.Q. Fərzullazadə, İ.M. Nəbiyev. Dirak operatorunun məxsusi ədədlərinin qarşılıqlı yerləşməsi // *BDU Xəbərləri, fiz.-riyaz. ser.*, 2022, № 1, s. 23-32.

[http://static.bsu.az/w1/01%2003%202022%20g/riyaziyyat-1-2022%20\(1\).pdf](http://static.bsu.az/w1/01%2003%202022%20g/riyaziyyat-1-2022%20(1).pdf)

Theses

1. İ.M. Nəbiyev, L.İ. Məmmədova, A.M. Məcidli. Sərhəd şərtində spektral parametr olan ikinci tərtib diferensial operatorun spektrinin xassələri/ Ümummilli Lider Heydər Əliyevin anadan olmasının 99-cu ildönümünə həsr edilmiş “Keyfiyyət təminatı rəqabət qabiliyyətli iqtisadi inkişafın əsas amili kimi” mövzusunda Beynəlxalq elmi-praktiki konfransın materialları, Bakı 5 may 2022 *Biznes Univ.nəşr.,səh 166-167.*

6).work: "On smooth solutions of fourth order operator-differential equations with a class of recurring characteristic. "

Ex: doct. ph.m.s.,prof.sen.r.a.A.R.Aliev.

In the paper, a fourth order operator-differential equation with repeated characted principal part is considered and its regular solvability notion is introduced.

Exact values of the norms of intermediate derivatives it should be noted that the conditions found for smooth regular solvability are expressed only by the coefficients of the operator-differential equation. These results can be found in [1].

Articles

1.Aliev A.R., Muradova N.L. Conditions for the existence of smooth solutions for a class of fourth order operator-differential equations // *Baku Mathematical Journal*, 2022, vol. 1, no. 1, p.p. 3-14.

<https://www.bakumathj.org/index.php/volumes>

<https://www.bakumathj.org/archive/Vol1No1/j.bmj.001.pdf>

2. Aliev A.R., Gahramanli Y.N., Aliyev S.I. Research on the volume weight of foamed composites based on brick waste using neural networks // Azerbaijan Journal of High Performance Computing, 2022, vol. 5, no. 1, p.p. 87-93.

<https://azjhpc.org/index.php/current>

<https://www.azjhpc.com/issue9/doi.org.10.32010.26166127.2022.5.1.87.93.pdf>

3. Алиев А.Р., Эйвазов Э.Х. Функция спектрального сдвига и собственные значения возмущенного оператора // Записки научных семинаров ПОМИ, 2022, том 512, с. 15-26.

<http://www.pdmi.ras.ru/zns1/2022/v512.html>

<http://ftp.pdmi.ras.ru/pub/publicat/zns1/v512/p015.pdf>

4. Aliev A.R., Elbably A.L., Muradova N.L. On solvability conditions of boundary value problems for a class of operator-differential equations of the third order in Sobolev type spaces // Proceedings of the Institute of Mathematics and Mechanics, National Academy of Science of Azerbaijan, 2022, vol. 48, no. 2, p.p. 285-294. (Web of Science / Scopus)

<http://proc.imm.az/volumes/48-2/> <http://proc.imm.az/volumes/48-2/48-02-10.pdf>

5. Aliev A.R., Gamzaev Kh.M., Darwish A.A., Nofal T.A. Numerical method for solving the inverse problem of non-stationary flow of viscoelastic fluid in the pipe // Bulletin of the South Ural State University, Ser. Mathematical Modelling, Programming and Computer Software, 2022, vol. 15, no. 4, p.p. 90-98. (Web of Science/ Scopus)

<https://mmp.susu.ru/issue/en/current> DOI: 10.14529/mmp220408

7).work: "Expansion and spectral issues for high-order operator-differential equations". Ex: doct. ph.m.s., prof. sen.r.a. M. Bayramoglu, doct. ph.m.s., ass. prof. sen.r.a. N.M. Aslanova.

In the report period, a boundary value problem for a fourth order differential operator equation was considered.

Removing the equation from the space where it has given a minimal differential operator corresponding to the considered problem is determined. A self adjoint expensing operators are determined, a condition for discrete spectrum is given.

Articles (submitted to print)

1. Bayramoglu M., F. Aydın Akgül. Regularized trace formula of differential-equation $2n$ order. Filomat.

2. Байрамоглу М., Джаббаров Н Ш., Исмаилова Л.Г. СВЯЗЬ между экстремальями многообразия и аффинного образа топологического произведения нескольких его экземпляров. Журнал Математические заметки.

3. N.M. Aslanova. On selfadjoint extensions of symmetric operator with exit to larger space. TWMS journal of pure and applied mathematics.

4. N.M. Aslanova. On extensions and spectral problems for fourth order differential operator equation.

Theses

1. N.M. Aslanova., Kh. Aslanov "On Extensions with Continuous Spectrum and with Resolvent from for Fourth Order Differential Operators" 5-th international e-conference on mathematical advances and its applications, May, 11-14, 2022, Istanbul, Turkey, pp.153 <https://2022.icomaas.com/>

2. N.M. Aslanova., Kh. Aslanov "On new method for regularized traces of differential operators" 5-th international e-conference on mathematical advances and its applications, May, 11-14, 2022, Istanbul, Turkey, pp.154 <https://2022.icomaas.com/>

3. N.M. Aslanova., Kh.M. Aslanov., Mamed Bayramoglu.

Asymptotics of eigenvalue distribution of one class of selfadjoint extensions, Modern problems of Mathematics and Mechanics June 29 – 1 July, 2022 Baku, Azerbaijan, pp.57 <http://mpmm.imm.az/wp-content/uploads/2022/06/Abstract.pdf>

4. N.M. Aslanova., Kh.M. Aslanov. On maximal operator and selfadjoint extensions of operator generated by fourth order differential equation, Proceedings of the 8-th international conference on control and optimization with industrial applications 24-26 August, 2022, Baku, Azerbaijan. pp126-129.

8). work: "Constructing the Schrödinger operator using the magnetic Laplacian in a three-dimensional layer and determining the number of eigenvalues of its critical spectrum to the left of the threshold."

Ex: doct. ph.m.s., ass. prof. sen. r.a. E.H. Eyvazov.

During the yearly reporting period, the exact lower limit of the magnetic Rayleigh relation, which plays an important role in the theory of surface superconductivity in two-dimensional space, was found. In addition, the existence and uniqueness of the solution of the inhomogeneous boundary value problem for the two-centered Sturm-Liouville equation was studied.

Articles

1. E.H. Eyvazov . Correct proof of finding the exact lower bound of the Rayleigh magnetic value, Baku Mathematical Journal, Vol. 1 No. 1, 2022, pp. 3-11.

2. Алиев А.Р., Эйвазов Э.Х. Функция спектрального сдвига и собственные значения возмущенного оператора // Записки научных семинаров ПОМИ, 2022, том 512, с. 15-26.

Theses

1. E.H. Eyvazov. Решение граничной задачи для двуцентрового уравнения Штурма-Лиувилля, Современные методы теории краевых задач, Материалы Международной конференции Воронежская весенняя математическая школа ПОНТЯГИНСКИЕ ЧТЕНИЯ — XXXIII Посвящается Юрию Ивановичу Сапронову (75-летию со дня рождения), 3–9 мая 2022, стр. 288.

9).work: "On stability of bases from excited exponent systems in Orlich spaces". Ex: c.ph.m.s., lead. r.a. A. N. Jabrailova

Here, a sufficient condition ensuring the basicity of the excited exponential system in the Orlich space is defined. An analogue of the classic Levinson's theorem on the replacement of a finite number of elements of that system has been proved.

Articles

1. A. Jabrailova, A. Shukurov. On frames that are iterates of a multiplication operator, Revista Colombiana de Matematicas, 2021, vol.55, num.2, p.139-147 (Web of Science)

2. Джабраилова А.Н., Джабарзаде Р.М. К спектральной теории операторных пучков. The scientific heritage, 2022, №86(2), p.30-33

Theses

1. A.Jabrailova, R.Dzhabarzadeh. To the spectral theory of multiparameter system of operators .akad. I.Ibrahimovun 110-illiyinə həsr olunmuş «Riyaziyyat və Mexikanın müasir problemləri» adlı beynəlxalq konfrans, 2022

10).work: On some properties of eigenvalues and eigenfunctions of multi-interval Sturm-Liouville problems.

Ex: c.ph.m.s.,lead.r.a. F.Sh.Mukhtarov.

In the report period, for the spectral problem consisting of the boundary conditions,

$$-u''(x) + q(x)u = \lambda u(x),$$

and the jumping conditions

$$u(-\pi) = 0, \quad u(\pi) = 0$$

of the Sturm-Liouville equation determined in the interval

$$(-\pi, -a) \cup (-a, a) \cup (a, \pi),$$

the following results were obtained.

As the main results, it was proved that eigen functions form a basis.

Article

1.Merve Yücel, Fahreddin Muhtarov, Oktay Muhtarov. A New Transformation Method for Solving High- Order Boundary Value Problems. Journal of New Theory. Volume 40, pp. 90-100, 2022. ISSN:2149-1402.

Article (submitted to print)

1.Hayati Olğar, Oktay S.Muxtarov, Fahreddin S.Muxtarov. The weak eigenfunctions of boundary-value problem with symmetric discontinuities. Published: 28 January 2022 by [Walter de Gruyter GmbH](#) in [Journal of Applied Analysis](#) (scopus) <https://doi.org/10.1515/jaa-2021-2079>

11).work: "Inverse problems for the Bessel operator with respect to two spectra." Ex: cand.ph.m.s., lead.r.a. N.J.Guliyev.

During the reporting period, the necessary conditions for the spectra of the two boundary problems, which share the potential and the Bessel singularity, have been obtained. Also, during the reporting period, the final versions of all articles accepted for publication in the journal Works of RMI were prepared and placed on the journal's website.

12).work: Straight and inverse scattering problems for a system of one-order hyperbolic equations. Ex:c.ph.m.s.,chief. r.a. K. A. Alimardanova

During the reporting period, the semi-axial scattering problem was studied for a system of three hyperbolic equations in the case of an incident wave. In addition, the half-axis scattering problem was studied for the system of six hyperbolic equations in the case of three incoming waves. A thesis was published. A thesis was also submitted for publication.

Theses

1.К.А.Алимарданова, Ф.Р.Башлинская. Задача рассеяния для системы трех гиперболических уравнений на полуоси в случае одной падающей волны/ Ümummilli Lider Heydər Əliyevin 99-cu ildönümünə həsr olunmuş "Riyaziyyat və mexanikanın aktual problemləri" adlı Respublika Elmi Konfransının materialları, Bakı, BDU, 11-13 may 2022-ci il, səh 30-31.

2.К.А.Алимарданова, А.Н.Сафарова. The scattering problem for the hyperbolic system of six first order equations on semi-axis with three given incident waves/ Akademik İbrahim İbrahimovun 110 illik yubileyinə həsr olunmuş "Riyaziyyat və mexanikanın müasir problemləri" adlı Beynəlxalq elmi konfransının materialları, Bakı, 29 iyun-1 iyul 2022-ci il, s. 46-47.

13).work: "Inverse spectral problems for increasing potential Schrödinger operators." Ex:phd in math.,chief.r.a. A.R. Latifova

Yost solutions for the summable complex periodic potential Schrödinger equation were found. Using transformation operators, the solution was constructed and estimates for the kernels were obtained.

Article

1.Н.М.Масмалиев., А.Р.Латифова. "The Jost Solutions to the Schrodinger Equation with an Additional Complex Periodic Potential". Journal of

14).work: Classes of quasi-normal and a class of unitary operators on Banach space. Ex:sen.res.ass. N.G.Vahabov.

This year three topics were researched and the following results were obtained.

1. Normal unitary operators.

New $Nu(x)$ unitary operators were determined in the Banach space and were compared with norm unitary $Nu(x)$ operators. The structure of the spectrum of normal-unitary operator was studied.

2. Numerical domain of norm-normal operator in Banach space.

The closeness criterion of the numerical domain of norm-normal operators in reflexive annular (reflexive smooth) Banach space is proved. An example is structured, it is not valid in any Banach space.

3. Full spectroid operators $Fs(x)$.

The place of the operator $Fs(x)$ among the operator classes is studied and the structure of the spectrum is studied. Topological closeness of the numerical domain of the operator Fs is studied.

A scattering problem is considered for a system of first order hyperbolic equation on a semi-axis for a there incident and three scattered wave were considered for three problems.

A scattering operator on a semi-axis was determined. In the case when the coefficients of the system of equations satisfy certain decrease conditions, the uniqueness of the solution of the scattering problem in the space of almost everywhere bounded functions, was shown.

15).work: The straight problem for the Sturm-Liouville operator in impedance form. Ex: phd in math.,chief. r.a. J. A. Osmanli

In the reporting semester, the existence of the Yost solution was proven, its integral expression was given, and the properties of the kernel of the integral expression were studied. Scattering data were determined.

Theses

1.J.A. Osmanly, A.R.Latifova "On the Iost representation of the Schrodinger equation with delta-shaped potential" / Modern Problems of Mathematics and

Mechanics PROCEEDINGS of the International conference devoted to the 110-th anniversary of academician I.I. Ibrahimov, Baku, 2022, p. 168-169

16).work: "The half-axis inverse scattering problem for a system of one-order linear hyperbolic equations in the case of two incident waves."Ex: phd in math., chief. r.a. A. N. Safarova

In this work, the problem of straight and reverse scattering on the semi-axis for the system of one-order linear hyperbolic equations in the case of two incoming waves is studied. Here, two different problems are considered together. It is as if a scattering operator acting everywhere in the space of limited functions was determined. The factorization properties of this operator were studied with the help of transformation operators.

Theses

1.K.A.Alimardanova, A.N.Safarova. The scattering problem for the hyperbolic system of six first order equations on a semi-axis with three given incident waves. Akademik İ.Ibrahimovun 110 illik yubileyinə həsr olunmuş Beynəlxalq konfransın materialları,Riyaziyyat və Mexanika İnstitutu,2022,səh.46-47.

2.A.N.Səfərova, T.Q.Cəfərquliyeva. Yarımoxda iki məsələyə görə tərs səpilmə məsələsi, Azərbaycan xalqının Ümummilli lideri H.Əliyevin anadan olmasının 99-cu ildönümünə həsr olunmuş “Riyaziyyat və mexanikanın aktual problemləri” adlı Respublika Elmi Konfransının materialları.BDU,2022,səh.205-206.

II. Scientific-social activity.

Doct. ph.m.s.,prof.sen.r.a. H.M. Aslanov continues his pedagogical activity the was appointed a chairman of state Examination Commission in BSU. He was a member of the organizational commita of the Republic Competition “Romarrow`s scientist”. He has participated in scientific councils as a member of defence

council. He is a member of the editorial board of the journals “Transactions of NAS of Azerbaijan” и “Proceedings of the Institute Mathematics and Mechanics”. He has supervised three candidates for a degree. One of his students, has gained the scientific degree of doctor of philosophy. He was a member of qualification minimum examination commission of doctoral students.

Doct. ph.m.s., prof.sen.r.a. A.R. Aliyev is the editor in chief of the international scientific journals “Azerbaijan Journal of high performance Computing” and “Baku mathematical journal” and a member of the editorial board of the journals “Proceedings of the Institute Mathematics and Mechanics, National Academy of Sciences of Azerbaijan” (Azerbaijan) and “Transactions of Azerbaijan Institutes of Technology” (Azerbaijan).

Doct. ph.m.s., prof.sen.r.a. I.M. Nabiyeu has published 5 scientific works including 4 papers and 1 proceeding of conference. Two of the papers were published in the journal supplicated in Web of Science and Scopus base. He has participated in 1 international Conference. He was an apponens of one doctor of philosophy dissertation. He was a chairman of the state. Commission (on magistration state) at Azerbaijan University of state Oil and Industry.

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Doct. ph.m.s., prof.sen.r.a. S.S. Mirzoyev's two canditions for degrees have submitted their dissertation works to the Scientific Council of IMM.

Many of the department collaborators are engaged in pedagogical activity in different higher education institutions of the Republic.

PARTICIPATION IN SCIENTIFIC SEMINARS

All the collaborators have participated in the institute and department seminars.

PUBLISHED SCIENTIFIC PAPERS

In the report period, 17 articles and 18 theses of the employees of the department were published, 7 articles were submitted for publication. 11 in Web of Science and Scopus base journals.

Head of department:

d.ph.m.s.prof. H.İ.Aslanov