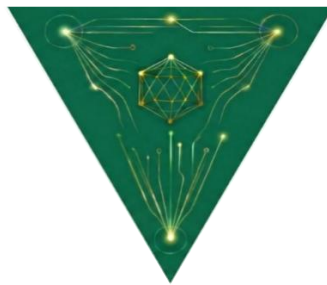




**The First Congress of
Mathematicians of
Kazakhstan**

**ХАЛЫҚАРАЛЫҚ ҒЫЛЫМИ КОНФЕРЕНЦИЯ
МЕЖДУНАРОДНАЯ НАУЧНАЯ КОНФЕРЕНЦИЯ
INTERNATIONAL SCIENTIFIC CONFERENCE**



**«КЕРІ ЖӘНЕ ҚИСЫНДЫ ЕМЕС ЕСЕПТЕР: ТЕОРИЯ,
ҚОЛДАНЫСТАР ЖӘНЕ ЖАСАНДЫ ИНТЕЛЛЕКТ»**

**«ОБРАТНЫЕ И НЕКОРРЕКТНЫЕ ЗАДАЧИ:
ТЕОРИЯ, ПРИЛОЖЕНИЯ И ИИ»**

**«INVERSE AND ILL-POSED PROBLEMS:
THEORY, APPLICATIONS AND AI»**

**Shymkent
April 03-07, 2026**

Institute of Information and Computational Technologies
National Engineering Academy of the Republic of Kazakhstan
The Institute of Mathematics and Mathematical Modeling, Kazakhstan
Sobolev Institute of Mathematics SB RAS, Russia
International Mathematical Center SB RAS, Russia
International Foundation of Inverse Problems, Kazakhstan

ХАЛЫҚАРАЛЫҚ ҒЫЛЫМИ КОНФЕРЕНЦИЯ
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**БАҒДАРЛАМА
ПРОГРАММА
PROGRAM**

**Shymkent
April 03-07, 2026**

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CO-CHAIRS:

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International Scientific Conference “Inverse and Ill-Posed Problems: Theory, Applications and AI”

INTERNATIONAL PROGRAM COMMITTEE

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Professor B. Rysbayuly (International Information Technology University, Almaty, Kazakhstan)
Professor K. Iskakov (L.N.Gumilyov Eurasian National University, Astana, Kazakhstan)
Professor G. Bakanov (MKTU named after A. Yassawi, Turkestan, Kazakhstan)
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Professor Abit Asanov (Manas University, Bishkek, Kyrgyzstan)
Professor Abdygani Satybaev (Osh University, Osh, Kyrgyzstan)

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Scientific Secretary: Ulpan Sotsialova

e-mail: onz.kazakhstan@gmail.com

telegram: @onz_kazakhstan

PROGRAM
International Scientific Conference
“Inverse and Ill-Posed Problems: Theory, Applications and AI”

Saturday, April 04, 2026

PLENARY SESSION

Location: Room 250B “Young Scientist Hall”, 2nd Floor, Main Building, M. Auezov South Kazakhstan University, Shymkent.

MODERATORS:

- **Sergey Kabanikhin** – Corresponding Member of the RAS, Chief Researcher, Sobolev Institute of Mathematics SB RAS, Novosibirsk, Russia
- **Maktagali Bektemessov** – Academician of NEA RK, General Director of the Institute of Information and Computational Technologies

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| 14:30-14:45 | <p>Uniqueness for an inverse problem of determining order and temporal factor of the source for subdiffusion equation</p> <p>RAVSHAN ASHUROV Professor, V. I. Romanovskiy Institute of Mathematics, Academy of Sciences of the Republic of Uzbekistan, Tashkent, Uzbekistan</p> |
| 14:45-15:00 | <p>Mathematical foundations of ultrasound tomography</p> <p>SERGEY KABANIKHIN Corresponding Member of the RAS, Sobolev Institute of Mathematics, Siberian Branch of the Russian Academy of Sciences, Novosibirsk, Russia</p> |
| 15:00-15:15 | <p>Нелокальная обратная краевая задача для параболического уравнения с дробной производной по времени</p> <p>ELVIN AZIZBEKOV Professor, Academy of Public Administration under the President of the Republic of Azerbaijan, Baku, Azerbaijan</p> |
| 15:15-15:30 | <p>Прямые и обратные задачи для многомерного уравнения смешанного типа высокого порядка</p> <p>SIROJIDDIN JAMALOV Professor, Institute of Mathematics, Academy of Sciences of the Republic of Uzbekistan, Tashkent, Uzbekistan</p> |
| 15:30-15:45 | <p>Неоднозначная разрешимость смешанной задачи для вырождающихся трехмерных гиперболо-эллиптических уравнений в моделях глиомы</p> <p>МАКТАГАЛИ БЕКТЕМЕССОВ Professor, Institute of Information and Computational Technologies, Almaty, Kazakhstan</p> |
| 15:45-16:00 | <p>Создание национальной экосистемы управления качеством образования на основе искусственного интеллекта</p> <p>ZHOLYMBAEV ORALTAY Professor, Shakarim University, Semey, Kazakhstan</p> |

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| 16:00-16:15 | <p>Алгоритм численного решения обратной задачи нахождения правой части для двумерного эллиптического уравнения</p> <p>MURAT SULTANOV Professor, Institute of Mathematics and Mathematical Modeling, Almaty, Kazakhstan</p> |
| 16:15-16:30 | <p>Multidimensional Markov Modeling of Investment Effects in the Kazakhstan Economy</p> <p>SEYIT KERIMKHULLE Professor, L.N. Gumilyov Eurasian National University, Astana, Kazakhstan</p> |
| 16:30-17:00 | COFFEE BREAK |
| <p>Section 1</p> <p>Location: Room 250B “Young Scientist Hall”, 2nd Floor, Main Building, M. Auezov South Kazakhstan University, Shymkent.</p> | |
| <p>MODERATORS:</p> <ul style="list-style-type: none"> • Syrym Kasenov – Associate Professor • Rysbiyke Asanova – PhD Student | |
| 17:00-17:10 | <p>Система неклассических интегральных уравнений Вольтерра 1- рода</p> <p>TURDUMAMAT BEKESHOV Associate Professor, Osh State University, Osh, Kyrgyzstan</p> |
| 17:10-17:20 | <p>О существовании обобщенного решения вырождающегося дифференциального уравнения в частных производных 1-порядка</p> <p>AIBEK TOKTORBAEV Associate Professor, Osh State University, Osh, Kyrgyzstan</p> |
| 17:20-17:30 | <p>Псевдогиперболическі тендеу үшін кері есептің шешімділігі</p> <p>SERIK AITZHANOV Associate Professor, Al-Farabi Kazakh National University, Almaty, Kazakhstan</p> |
| 17:30-17:40 | <p>Optimal control problem for a fifth-order partial differential equation</p> <p>МАНКАМБЕК БАБАЕВ PhD, Tashkent State Transport University, Tashkent, Uzbekistan</p> |
| 17:40-17:50 | <p>Comparative Analysis and Practical Guidelines for Solving Time-Fractional Hyperbolic Equations with Memory</p> <p>ZHANARS ABDIRAMANOV PhD, Abai Kazakh National Pedagogical University, Almaty, Kazakhstan</p> |
| 17:50-18:00 | <p>An Ill-Posed Inverse Problem for Hidden Cognitive Dynamics from Locomotion Time Data</p> <p>MARK SIGALOVSKY KBTU / Al-Farabi Kazakh National University, Almaty, Kazakhstan</p> |

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| 18:00-18:10 | <p>Математические и машинно-обучающие методы выявления стресс-подобных физиологических состояний по данным носимых сенсоров</p> <p>NURASYL ZHOLDAS Al-Farabi Kazakh National University, Almaty, Kazakhstan</p> |
| 18:10-18:20 | <p>Численное решение обратной задачи термоакустики с применением QFT и градиентного метода</p> <p>RYSBIYKE ASANOVA M. Auezov South Kazakhstan University, Shymkent, Kazakhstan</p> |
| 18:20-18:30 | <p>Бірөлшемді Пеннес тендеуінің тура есебін сандық әдіспен шешу</p> <p>SYRYM KASENOV Associate Professor, Al-Farabi Kazakh National University, Almaty, Kazakhstan</p> |
| 18:30-18:40 | DISCUSSION. PHOTOSHOOT. |
| <p>Section 2</p> <p>Location: Room 117 “RISE Lab”, 1st Floor, Building G, M. Auezov South Kazakhstan University, Shymkent</p> | |
| <p>MODERATORS:</p> <ul style="list-style-type: none"> • Zholaman Bektemessov – PhD • Ulpan Sotsialova – PhD Student | |
| 17:00-17:10 | <p>Сравнительный анализ эффективности точечного и распределенного теплового воздействия на неоднородную биологическую ткань</p> <p>PARDAZ KOZHOBЕКOVA PhD, Osh State University, Osh, Kyrgyzstan</p> |
| 17:10-17:20 | <p>Inverse Problems for the Burgers Equation in a Degenerate Domain</p> <p>MADI YERGALIYEV PhD, Institute of Mathematics and Mathematical Modeling, Almaty, Kazakhstan</p> |
| 17:20-17:30 | <p>An inverse problem for pseudoparabolic equation with memory term and damping</p> <p>AIDOS SHAKIR PhD, Al-Farabi Kazakh National University, Almaty, Kazakhstan</p> |
| 17:30-17:40 | <p>Применение преобразования Лапласа к обратной задаче теплопроводности в области с подвижной границей</p> <p>YURIY SHPADI PhD, Institute of Mathematics and Mathematical Modeling, Almaty, Kazakhstan</p> |
| 17:40-17:50 | <p>Nonlinear Haller Equation of Moisture Transfer: Difference Problem, a Priori Estimates, Convergence of Difference Problem, Inverse Problem</p> <p>NAZERKE RYSBAYEVA Kazakh-British Technical University, Almaty, Kazakhstan</p> |
| 17:50-18:00 | <p>Оценки устойчивости дискретных аналогов задач интегральной геометрии</p> <p>SAULE MELDEBEKOVA International Kazakh-Turkish University named after H.A. Yasawi, Turkestan, Kazakhstan</p> |

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| 18:00-18:10 | Вариационный метод оптимизации для решения двумерной обратной магнитотеллурической задачи MOLDIR DAULETBAY M. Auezov South Kazakhstan University, Shymkent, Kazakhstan |
| 18:10-18:20 | Обратная задача в моделировании роста опухоли: применение модели Гомпертца BEKZAT SULTAN Al-Farabi Kazakh National University, Almaty, Kazakhstan |
| 18:20-18:30 | DISCUSSION. PHOTOSHOOT. |

Monday, April 06, 2026

PLENARY SESSION

Location: Room 252 “International Hall”, 2nd Floor, Main Building, M. Auezov South Kazakhstan University, Shymkent.

MODERATORS:

- **Sergey Kabanikhin** – Corresponding Member of the RAS, Chief Researcher, Sobolev Institute of Mathematics SB RAS, Novosibirsk, Russia
- **Maktagali Bektemessov** – Academician of NEA RK, General Director of the Institute of Information and Computational Technologies

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| 09:00-09:15 | Коэффициентные обратные задачи временного типа для параболических и квазипараболических уравнений ALEXANDER KOZHANOV Professor, Sobolev Institute of Mathematics, Siberian Branch of the Russian Academy of Sciences, Novosibirsk, Russia |
| 09:15-09:30 | Poisson-Type Equations for Thermoelastic Strains with Boundary Conditions UMIDJON DJUMAYOZOV Professor, Samarkand Branch of Tashkent University of Information Technologies, Samarkand, Uzbekistan |
| 09:30-09:45 | Source identification in an integral-type nonlocal problem for a reverse parabolic equation CHARYYAR ASHYRALYEV Professor, Bahçeşehir University, Istanbul, Turkey |
| 09:45-10:00 | ANN supporting determination of transient Heat Transfer Coefficients IMRE FELDE Professor, Óbuda University, Budapest, Hungary |
| 10:00-10:15 | Ill-posed continuation problems of mathematical physics MAXIM SHISHLENIN Professor, Sobolev Institute of Mathematics, Novosibirsk, Russia |

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| 10:15-10:30 | Использование метода дополнительного аргумента для решения обратной задачи AIZHARKYN ASHIRBEVA Professor, Osh Technological University named after M.M. Adyshev, Osh, Kyrgyzstan |
| 10:30-10:45 | Inverse source problems for Navier-Stokes equations KHONATBEK KHOMPYSH Professor, Al-Farabi Kazakh National University, Almaty, Kazakhstan |
| 10:45-11:00 | Identification parameter problem for a family evolution equations with functional term ANAR ASSANOVA Professor, Institute of Mathematics and Mathematical Modeling, Almaty, Kazakhstan |
| 11:00-11:30 | COFFEE BREAK |
| Section 1 Location: Room 252 “International Hall”, 2nd Floor, Main Building, M. Auezov South Kazakhstan University, Shymkent. | |
| MODERATORS: | |
| <ul style="list-style-type: none"> • Syrym Kasenov – Associate Professor • Rysbiyke Asanova – PhD Student | |
| 11:30-11:40 | О применимости методов Векуа и Отельбаева к краевым задачам для полигармонических уравнений MUZAFFAR SABIRZHANOV PhD, Osh State University, Osh, Kyrgyzstan |
| 11:40-11:50 | Численное решение прямой и обратной задач оптимального контроля эпидемий с учетом возрастных особенностей TATYANA ZVONAREVA Sirius University of Science and Technology, Sirius, Russia |
| 11:50-12:00 | Обобщенная задача Геллерстедта с аналогом условия Франкля DILSHOD MAMATMUMINOV Termez State University, Termez, Uzbekistan |
| 12:00-12:10 | Екі камералы медицина-биологиялық кері есебі үшін сәйкестендіруді зерттеу MARZHAN DOSHCHANOVA M. Auezov South Kazakhstan University, Shymkent, Kazakhstan |
| 12:10-12:20 | Сызықты емес реакция-диффузия тендеуі үшін тура есепті шешудің сандық әдістері ZHANAR MAKSUMOVA M. Auezov South Kazakhstan University, Shymkent, Kazakhstan |
| 12:20-12:30 | Generative neural networks as operators in inverse problems of tumor growth dynamics AISHA BALGABAY Bilkent University, Ankara, Turkey |

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| 12:30- 12:40 | Итерационный метод Ландвебера для обратной задачи акустики SYRYM KASENOV Associate Professor, Al-Farabi Kazakh National University, Almaty, Kazakhstan |
| 12:40- 12:50 | DISCUSSION. PHOTOSHOOT. |
| Section 2 | |
| Location: Room 116 “Energy & Drive Systems Lab”, 1st Floor, Building G, M. Auezov South Kazakhstan University, Shymkent. | |
| MODERATORS: | |
| <ul style="list-style-type: none"> • Zholaman Bektemessov – PhD • Ulpan Sotsialova – PhD Student | |
| 11:30- 11:40 | FWA based approach for solution complex IHCP problems IMRE FELDE Professor, Obuda University, Budapest, Hungary |
| 11:40- 11:50 | Обратная задача для интегро-дифференциального уравнения в частных производных четвертого порядка со степенными особенностями GULZAT KARIMOVA Osh Technological University named after M.M. Adyshev, Osh, Kyrgyzstan |
| 11:50- 12:00 | О единственности решения задачи Трикоми для одного класса уравнений смешанного типа с различными порядками вырождения. FAYZULLA MIRZAYEV Termez State University, Termez, Uzbekistan |
| 12:00- 12:10 | Inverse Boundary Problem for a Linear Pseudoparabolic Equation MURAT MUKHAMBETKALIYEV Al-Farabi Kazakh National University, Almaty, Kazakhstan |
| 12:10- 12:20 | Задачи идентификации внешнего воздействия комбинированного вида для гиперболических уравнений первого порядка KORKEM ZHALGASOVA Institute of Mathematics and Mathematical Modeling, Shymkent, Kazakhstan |
| 12:20- 12:30 | Heat polynomials method for solving inverse Cauchy-Stefan problems ZHANGIR RAYEV Nazarbayev University, Astana, Kazakhstan |
| 12:30- 12:40 | Екі өлшем нүктесі негізінде ісік өсуінің Гомпертц моделінің параметрлерін бағалау және динамикасын қалпына келтіру ULPAN SOTSIALOVA Abai Kazakh National Pedagogical University, Almaty, Kazakhstan |
| 12:40- 12:50 | DISCUSSION. PHOTOSHOOT. |

The conference is held within the framework of the First Congress of Mathematicians of Kazakhstan and is organized as part of its scientific program.