110th anniversary of the outstanding scientist academician ORYMBEK AKHMETBEKOVICH ZHAUTYKOV (1911–1989)

Orymbek Akhmetbekovich Zhautykov was born in May, 1911 in the Kounrad District (now the Aktogay District) of the Karaganda Region. From 1920 to 1930, he studied first in the village school and then in the schools of the first and second stages in Karkaralinsk. In 1934, he graduated from the Faculty of Physics and Mathematics of the Abai Kazakh Pedagogical Institute and, as an excellent graduate, was appointed to the institute as an assistant. In succession, he was promoted to senior lecturer, associate professor, head of the department, Dean of Faculty of Physics and Mathematics, and deputy director of the institute for science and academic affairs. Zhautykov's scientific career started in Leningrad. In 1939, he entered the graduate school of the Leningrad State University. His scientific supervisor was a famous mathematician, Professor I.P. Natanson. Zhautykov's research interests were shaped under the influence of such prominent mathematicians as V.I. Smirnov, L.V. Kantorovich, N.P. Erugin, N.A. Artemiev. The outbreak of the Great Patriotic War interrupted his studies in the graduate school. In 1941, O.A. Zhautykov started a fruitful scientific collaboration with K.P. Persidsky, who came from Kazan to Alma-Ata. Professor Persidsky, the successor of scientific ideas of the outstanding Russian mathematician A.M. Lyapunov, organized the scientific seminar on the theory of stability. O.A. Zhautykov actively participated in the seminar. In 1944, he successfully defended his candidate dissertation entitled "Certain questions in the theory of stability of motion in the sense of Liapunov". The thesis presented an extension of the Liapunov and Chetaev theorems on the instability of the trivial solutions to systems of ordinary differential equations, and a number of results on the stability of solutions of associated systems. In early 1945, as part of a delegation of Kazakh scientists, O.A. Zhautykov arrived in Moscow to approve the structure and staff of the Academy of Sciences of the Kazakh SSR based on the existing branch of the Academy of Sciences of the USSR. During this period, in Moscow and Leningrad, he met with academicians I.M. Vinogradov, V.I. Smirnov, I.G. Petrovsky and other scientists. They discussed the problems and subjects of the future Sector of Mathematics and Mechanics, the establishment of which was planned as a part of the future Academy of Sciences of the Kazakh SSR and was warmly supported by those mathematicians. The Sector of Mathematics and Mechanics was established on March 1, 1945. At first, O.A. Zhautykov worked there as a senior researcher, and since 1951 he headed the Sector of Mathematics and Mechanics. During these years, he paid great attention to the training of highly-qualified scientific and pedagogical staff for the republic. On his initiative and with his active participation, many young graduates of Kazakhstani universities, especially Kazakh State University named after S.M. Kirov and the Kazakh Pedagogical Institute named after Abai, were sent to the central research institutions and universities of the republic. Scientific knowledge and directions received by young people in leading research centers built the basis for the further development of Kazakhstan mathematics. Many of them later became famous scientists and created their own scientific schools. O.A. Zhautykov's research was mainly focused on the theory of infinite systems of differential equations. He proved the existence of periodic solutions to infinite systems of differential equations and generalized Poincare's

classical theorem on the analyticity of a solution with respect to a parameter. Developing the classical ideas of Poisson and Hamilton-Jacobi to countable canonical systems, O.A. Zhautykov proved the validity of the principle of least action for systems with an infinite number of degrees of freedom. O.A. Zhautykov made an important contribution to the theory of partial differential equations of the first order. He developed a method allowing obtaining the representation of solutions in the case of a countable number of independent variables. Developing the ideas of Academician I.G. Petrovsky, O.A. Zhautykov investigated the question of the well-posedness of the Cauchy problem for infinite systems of first-order partial differential equations with two independent variables. He established conditions for the existence of a solution to the Cauchy problem for a countable system of first-order partial differential equations with a finite number of independent variables of general form. Extending the averaging principle of N.N. Bogolyubov in nonlinear mechanics to a countable system of differential equations, O.A. Zhautykov proved a generalized theorem on the integral continuous dependence of solutions to a parameter. In 1961, O.A. Zhautykov defended his doctoral dissertation entitled "Research on the theory of countable systems of differential equations". He paid close attention to approximate methods for solving differential equations and their use in applied problems. O.A. Zhautykov justified the applicability of the method of operational calculus to find the exact and approximate solutions of infinite systems of differential equations. His research on the development of the truncation method, the method of a small parameter, and the averaging method made it possible to solve problems in the theory of oscillations of systems with an infinite number of degrees of freedom and many problems for infinite systems of ordinary differential and integro-differential equations. O.A. Zhautykov made a significant contribution to the study of the stability of integral manifolds of infinite systems of differential equations. He generalized the Lyapunov reduction principle and substantiated the use of the Laplace transform in constructing solutions to countable systems. A number of Zhautykov's works are devoted to the application of the methods of functional analysis to the study of problems of oscillations in distributed systems. Many researchers use his studies, devoted to the vibrations of a rectilinear rod with account for the energy dissipation in the material, as an application of functional analysis methods to vibration problems for elastic systems. O.A. Zhautykov was the first to consider boundary value problems for systems of differential equations with a countable number of parameters. Such problems often arise in control theory, when transferring a controlled object to a certain position. The peculiarity of the control of systems with an infinite number of degrees of freedom is that the extremal principle does not hold for them without additional conditions. Based on the linearization of nonlinear systems of differential equations, O.A. Zhautykov established necessary optimality conditions for such systems. This allowed the problem of optimal control of distributed parameters to be reduced to a problem for an infinite system of differential equations. O.A. Zhautykov developed a constructive method for studying boundary value problems for ordinary differential equations. This method was applied to conduct a comprehensive analysis of the behavior of periodic solutions to equations with a small parameter in critical cases. In 1974, O.A. Zhautykov jointly with K.G. Valeev published the monograph "Infinite Systems of Differential Equations". The value of this monograph was that it collected the latest achievements in the theory of infinite systems of differential equations, and many of them belonged to the authors. The existence and uniqueness of theorems for linear and nonlinear infinite systems, theorems on continuous dependence of a solution on a parameter, and theorems on extensibility of solutions were first presented in the monograph. Qualitative questions of infinite systems of differential equations with delayed argument were also comprehensively investigated. The book met with wide recognition far beyond the USSR. In 1976, O. Zhautykov was awarded the State Prize of the Kazakh SSR in the field of science and engineering. Many international scientists have cited O.A. Zhautykov's research findings in the study of initial and boundary value problems for differential equations with delayed argument. His theorems on the averaging and truncating countable systems of differential equations, as well as their applications to solving oscillation problems for elastic systems described by fourth-order partial differential equations, are presented in the monographs of Academician Yu.A. Mitropolskiy "Averaging method in nonlinear mechanics"(Kiev: Naukova dumka, 1971) and "Asymptotic methods for solving partial differential equations"(Kiev: Vishcha shkola, 1979, co-author B.I. Moseenkov). O.A. Zhautykov 's contribution to the development of mathematical science is fully reflected in the collections "Mathematics in the USSR during Forty Years 1917-1957 "Mathematics in the USSR during Fifty Years 1917-1967 "Mechanics in the USSR during Fifty Years 1917-1967 in the four-volume book "The History of Domestic Mathematics in the book "The Biographical Dictionary of Scientists in the Field of Mathematics". In 1962, O.A. Zhautykov was elected a full member of the Academy of Sciences of the Kazakh SSR for his fundamental research in the theory of differential equations and for his significant contribution to the development of mathematical science. Academician O.A. Zhautykov actively participated in numerous congresses, conferences, and symposia on topical issues of mathematics and mechanics, held in the Soviet

Union and abroad. In 1974, in recognition of his exceptional merit, O.A. Zhautykov was awarded the title of Honored Scientist of the Kazakh SSR. Along with intensive scientific activity, Academician O.A. Zhautykov paid constant attention to the education of the next generation of researchers in mathematics and mechanics. Fifteen candidate dissertations were defended under his supervision. He devoted more than fifty years to pedagogical activity delivering engaging and deeply meaningful lectures to students of Kazakh Pedagogical Institute, Kazakh State University, Kazakh Polytechnic Institute, and Kazakh Women's Pedagogical Institute. In 1958, O.A. Zhautykov published the first textbook on mathematical analysis in the Kazakh language, which became a paramount event in the history of Kazakhstani higher education. His example and experience contributed to the publishing of textbooks in national languages in other Soviet republics. O.A. Zhautykov was a prominent expert in the history and methodology of mathematics, a consistent popularizer of mathematical knowledge. In 1978, he wrote the book "Mathematics and Scientific and Technological Progress" where mathematical problems that significantly influenced the development of science and technology were presented in simple terms. O.A. Zhautykov published the first textbook on ordinary differential equations in the Kazakh language (in two parts, 1950 and 1952), essays about outstanding Russian mathematicians (1956), the books "From mental arithmetic to machine mathematics"(1959), "The history of the development of mathematics from ancient times to the early XVII century"(1967), and the textbook for teachers "Introduction to higher mathematics"(1984). Academician O.A. Zhautykov was a tireless and productive scientist. He published about 200 scientific and methodological works, textbooks, and articles. The efforts of Orymbek Akhmetbekovich Zhautykov to develop mathematical science in the republic, his tireless concern for young highly-qualified staff, and his great reputation among mathematicians contributed to the establishment of the Institute of Mathematics and Mechanics of the Academy of Sciences of the Kazakh SSR (on the basis of the Sector of Mathematics and Mechanics) in 1965. From 1969 to 1985, O.A. Zhautykov headed the Department of Physical and Mathematical Sciences, holding the position of academician-secretary and being a member of the Presidium of the Academy of Sciences of the Kazakh SSR. For many years, he led the Joint Scientific Council, and then a specialized Council for the defense of candidate dissertations. He was the chair of the problem council in mathematics at the Department of Physical and Mathematical Sciences, chairman of the methodological seminar at the Institute of Mathematics and Mechanics, and chairman of the scientific and methodological council at the board of the republican society "Knowledge" for the promotion of physical and mathematical knowledge. He was the editor of a number of thematic collections ("Differential Equations and Their Applications "Functional Analysis and Mathematical Physics"), a member of the editorial board, and then deputy editor-in-chief of the journal "News of the Academy of Sciences of the Kazakh SSR". Physics and Mathematics Series a member of the editorial board of the journal "Bulletin of the Academy of Sciences of the Kazakh SSR". A number of monographs were published under his editorship. Realizing that today's schoolchildren will fill tomorrow's university classrooms, O.A. Zhautykov paid special attention to the enhancement of physical and mathematical education in Kazakhstani schools. He delivered numerous lectures and presentations on educational problems for republican teachers. O.A. Zhautykov put a lot of effort into organizing the Republican Physics and Mathematics School in Alma-Ata, which now bears his name. The students of this school listened to his popular lectures on elementary mathematics. Today, many graduates of the school have become famous scientists, occupy government positions and work fruitfully for the benefit of independent Kazakhstan. At Zhautykov's initiative, the Junior Academy of Sciences for schoolchildren was organized in Almaty. He was the honorary president of the Academy for many years. An outstanding scientist, great teacher, talented scientific organizer, academician of the Academy of Sciences of the Kazakh SSR, doctor of physical and mathematical sciences, professor, laureate of the State Prize of the Kazakh SSR, Orymbek Akhmetbekovich Zhautykov passed away on May 16, 1989. For great merit in the creation and development of mathematical science, the education of scientific and pedagogical personnel, and in the enhancement of physical and mathematical education in Kazakhstan, O.A. Zhautykov was awarded the Order of the October Revolution, two Orders of the Badge of Honor, Certificate of Honor of the Supreme Council of the Kazakh SSR, and many medals and certificates. The Council of Ministers of the Kazakh SSR adopted a resolution to perpetuate the memory of the scientist. Republican Physics and Mathematics School in Alma-Ata and secondary school No. 1 in Karkaralinsk were named after Orymbek Akhmetbekovich Zhautykov. A memorial plaque was installed in the house where he lived. In January 2005, within the walls of the Republican Physics and Mathematics School named after O.A. Zhautykov, the First International Zhautykov Olympiad in mathematics and physics was held. About 200 schoolchildren from 15 countries participated in the Olympiad. Since then, seventeen International Zhautykov Olympiads in mathematics, physics, and computer science have been successfully held. This year, from January 8 to 13, the 17th International Zhautykov Olympiad was first organized in an online format. The Olympiad was attended by 1006 schoolchildren from 21 countries,

representing 146 teams from Kazakhstan, Australia, Azerbaijan, Armenia, Belarus, Bulgaria, Georgia, Denmark, India, Indonesia, Iran, Kyrgyzstan, Mongolia, Russia, Romania, Serbia, Tajikistan, Turkmenistan, Turkey, Uzbekistan, and Ukraine. The scientific ideas and directions of O.A. Zhautykov have been successfully developed by his students and followers. One of his well-known students is Doctor of Physical and Mathematical Sciences, Professor Sartabanov Zhaishylyk Almagambetovich, who has been successfully working at the Aktobe Regional University named after K. Zhubanov for many years. Zh.A. Sartabanov and his students extend the methods and scientific results obtained by O.A. Zhautykov to new and important classes of partial differential equations. A talented student of Academician Zhautykov was Doctor of Physical and Mathematical Sciences, Professor Dulat Syzdykbekovich Dzhumabaev. He created his own mathematical school, which implements the fundamental ideas of Orymbek Akhmetbekovich Zhautykov in combination with the Dzhumabaev parameterization method. His numerous students successfully work at leading universities of Kazakhstan and the Institute of Mathematics and Mathematical Modeling. Unfortunately, Professor Dzhumabaev passed away in 2020. In 2014, the Scientific Library of the Academy of Sciences with the support of the family released a unique book "Zhautykov Orymbek Akhmetbekovich, Academician of the Academy of Sciences of the Kazakh SSR" in the Scientific and biographical series "Prominent figures in Kazakhstan science". The book reflects the life and work of O.A. Zhautykov and contains his biographical information, literature about him, documents from home archives (letters, memoirs of contemporaries, his poems, individual reviews, photographs), as well as chronological and alphabetical lists of his research papers. In the book's preface, the son of the academician - Doctor of Physical and Mathematical Sciences, Professor Bolat Orynbekovich Zhautykov writes: "The book offered to your attention is neither a memoir nor a biography, but is a collection of documents, letters, essays, drafts concerning the life and scientific work of the Academician of the Academy of Sciences of the Kazakh SSR, Professor, Doctor of Physical and Mathematical Sciences Orymbek Akhmetbekovich Zhautykov. It has been 100 years since his birth, and for more than 20 years now, he has not been with us. The further his time goes away, the stronger the need to characterize him, his versatile creative activity. As it seems to us, materials preserved in the family archive make it possible to do this in the most adequate way. Unfortunately, the collection does not reflect his pedagogical activity, which accompanied him all his life. The documents and letters are arranged in chronological order. Some letters from one respondent are placed next to each other, despite the fact that they are separated by some significant time interval. All correspondence from the pre-war period has not survived. It should be noted that Orymbek Akhmetbekovich considered the creation of the Institute of Mathematics in the system of the Academy of Sciences of the Kazakh SSR as one of his most significant achievements. Therefore, the book contains copies of letters and draft resolutions prepared by Orymbek Akhmetbekovich for the decision-making administrative bodies of the Republic and the governance of the Academy of Sciences, as well as letters from other correspondents related to the upcoming opening of the institute. Within the framework of that system of science administration in the USSR, the already adopted resolution on the establishment of the institute had to be "pushed" through the high offices in Moscow, which, overcoming various bureaucratic difficulties, Orymbek Akhmetbekovich successfully implemented. The collection presents the biographical sketches of people with whom Orymbek Akhmetbekovich corresponded and had friendly relations. These sketches give an idea of the scopes of their personalities, as well as the wide range of his correspondents."This year, 2021, marks the 30th anniversary of Kazakhstan's independence. On this significant date, we honor iconic personalities of the Kazakh land, who made an outstanding contribution to science and education in our country. In the year of the 110th anniversary of Academician O.A. Zhautykov, we are proud to pay tribute to his memory and respect for his invaluable contribution to the formation and development of Kazakhstan's mathematical science and higher education.

Editorial board of the journal
«Bulletin of the Karaganda University. Mathematics series»

References

1 Жаутыков О.А. Некоторые теоремы устойчивости движения / О.А. Жаутыков // Изв. АН КазССР. Сер. мат. и мех. – 1947. – Вып. 1. – С. 88–100.

2 Жаутыков О.А. Задача Коши для счетной системы уравнений с частными производными / О.А. Жаутыков // Изв. АН КазССР. Сер. мат. и мех. – 1949. – Вып. 3. – С. 85–90.

3 Жәутіков О.А. Жай дифференциалдық теңдеулер. Жоғары оқу орындарына арналған оқулық. I-бөлім / О.А. Жәутіков. – Алматы: Мектеп, 1950. – 52 б.

4 Жәутіков О.А. Орыс халқының ұлы математигі Александр Михайлович Ляпунов / О.А. Жәутіков. – Алматы: Мектеп, 1950. – 26 б.

5 Жәутіков О.А. Математика және оның дамуы / О.А. Жәутіков. – Алматы: Мектеп, 1951. – 82 б.

6 Жаутыков О.А. Задача Коши для счетной системы уравнений с частными производными n-го порядка / О.А. Жаутыков // Изв. АН КазССР. Сер. мат. и мех. – 1951. – Вып. 5. – С. 142–153.

7 Жәутіков О.А. Жай дифференциалдық теңдеулер. Жоғары оқу орындарына арналған оқулық. II-бөлім / О.А. Жәутіков. – Алматы: Мектеп, 1952. – 92 б.

8 Жаутыков О.А. Задача Коши в линейном нормированном пространстве / О.А. Жаутыков // Изв. АН КазССР. Сер. астрон., физ., мат. и мех. – 1952. – Вып. 1. – С. 81–87.

9 Жаутыков О.А. Константин Петрович Персидский. (К 50-летию со дня рождения) / О.А. Жаутыков // Успехи математических наук. – 1954. – Т. 9. – Вып. 1. – С. 151–154.

10 Жаутыков О.А. Краткий обзор развития теории дифференциальных уравнений с частными производными. К 220-летию со дня появления теории уравнений в частных производных / О.А. Жаутыков // Вестн. АН КазССР. – 1955. – Вып. 7. – С. 4–19.

11 Жаутыков О.А. К вопросу о построении интегралов уравнений с частными производными первого порядка счетного множества независимых переменных / О.А. Жаутыков // Изв. АН КазССР. Сер. мат. и мех. – 1956. – Вып. 4. – С. 48–69.

12 Жаутыков О.А. Обобщение скобок Пуассона для функций счетного множества переменных / О.А. Жаутыков // Мат. сб. АН СССР. Нов. сер. – 1957. – Т. 43. – Вып. 1. – С. 29–36.

13 Жаутыков О.А. По поводу решения одной задачи теории фильтрации / О.А. Жаутыков // Изв. АН КазССР. Сер. мат. и мех. – 1957. – Вып. 6. – С. 46–50.

14 Жәутіков О.А. Математикалық анализ курсы: Пединституттардың физика-математика факультеттеріне арналған оқулық / О.А. Жәутіков // – Алматы: Мектеп, 1958. – 783 б.

15 Жәутіков О.А. Жай санаудан машиналық математикаға жету (Математиканың даму тарихынан) / О.А. Жәутіков. – Алматы: Мектеп, 1959. – 272 б.

16 Жаутыков О.А. О счетной системе дифференциальных уравнений, содержащей переменные параметры / О.А. Жаутыков // Мат. сб. АН СССР. Нов. сер. – 1959. – Т. 49. – Вып. 3. – С. 317–330.

17 Жаутыков О.А. К построению характеристик уравнений в частных производных первого порядка счетного множества переменных на основе метода редукции / О.А. Жаутыков // Изв. высш. учеб. зав. Математика. – 1960. – Вып. 3. – С. 127–142.

18 Жаутыков О.А. Решение краевой задачи для бесконечной системы обыкновенных дифференциальных уравнений / О.А. Жаутыков // Укр. мат. журн. – 1960. – Т. 12. – Вып. 2. – С. 157–164.

19 Жаутыков О.А. О распространении теоремы Гамильтона–Якоби на бесконечную каноническую систему уравнений / О.А. Жаутыков // Мат. сб. АН СССР. Нов. сер. – 1961. – Т. 53. – Вып. 1. – С. 313–328.

20 Жаутыков О.А. Некоторые вопросы теории счетных систем дифференциальных уравнений / О.А. Жаутыков // Differential Equations. Teil Appelications equadiff. Praga. – 1962. – Vol. 11. – P. 72–73.

21 Жаутыков О.А. К шестидесятилетию Константина Петровича Персидского / О.А. Жаутыков, Г.Н. Багаутдинов // Успехи математических наук. – 1963. – Т. 18. – Вып. 6. – С. 241.

22 Жаутыков О.А. Принцип усреднения в нелинейной механике применительно к счетным системам уравнений / О.А. Жаутыков // Укр. мат. журн. – 1965. – Т. 17. – Вып. 1. – С. 39–46.

23 Жаутыков О.А. Счетные системы дифференциальных уравнений и их применение / О.А. Жаутыков // Дифференциальные уравнения. – 1965. – Т. 1. – Вып. 2. – С. 162–170.

24 Жаутыков О.А. О применении неявных функций к решению краевых задач для бесконечных систем дифференциальных уравнений / О.А. Жаутыков // Differential Equations. Teil Appelications equadiff. Bratislawa. – 1966. – V. 11. – P. 48–50.

25 Жәутіков О.А. Математиканың даму тарихы (Ерте заманнан XVII ғасырға дейін) / О.А. Жәутіков. – Алматы: Ғылым, 1967. – 390 б.

26 Жәутіков О.А. Комплекс сандар және олардың практикалық маңызы / О.А. Жәутіков. – Алматы: Мектеп, 1969. – 135 б.

27 Жаутыков О.А. Роль математики в развитии естествознания и техники / О.А. Жаутыков. – Алма-Ата: Ғылым, 1970. – 62 с.

28 Жаутыков О.А. Об одной задаче теории фильтрации / О.А. Жаутыков, А. Булекбаев // Изв. АН КазССР. Сер. физ.-мат. – 1971. – Вып. 3. – С. 37–39.

29 Жаутыков О.А. О многоточечной краевой задаче для дифференциальных уравнений с отклоняющимся аргументом / О.А. Жаутыков, В.Г. Бродовский // Изв. АН КазССР. Сер. физ.-мат. – 1972. – Вып. 5. – С. 7–13.

30 Жаутыков О.А. Развитие физико-математических наук в Казахстане / О.А. Жаутыков // Вестн. АН КазССР. – 1973. – Вып. 1. – С. 36–43.

31 Жаутыков О.А. Бесконечные системы дифференциальных уравнений / О.А. Жаутыков, К.Г. Валеев. – Алма-Ата: Ғылым, 1974. – 416 с.

32 Жаутыков О.А. Из истории развития математики в Академии наук / О.А. Жаутыков // Изв. АН КазССР. Сер. физ.-мат. – 1974. – Вып. 3. – С. 1–7.

33 Жәутіков О.А. Ақиқатты танып-білудегі математиканың ролі / О.А. Жәутіков. – Алматы: Мектеп, 1975. – 32 б.

34 Жаутыков О.А. Роль математики в познании действительности / О.А. Жаутыков. – Алма-Ата: Мектеп, 1975. – 24 с.

35 Жаутыков О.А. О некоторых результатах исследований по теории бесконечных систем дифференциальных уравнений / О.А. Жаутыков // Applied Mathematics. Sofia. – 1976. – Vol. 11. – Iss. 1. – P. 35–42.

36 Жаутыков О.А. О разрешимости многоточечных краевых задач для дифференциальных уравнений с отклоняющимся аргументом / О.А. Жаутыков // Bulletinal institutului politechnic din. Tasi tomul XXII (XXVI). Fase 3-4. Secjia 1 (Matematica, teoretica Fizica). – 1976. – P. 75–79.

37 Жаутыков О.А. О применении метода укорочения к задачам колебаний упругих систем / О.А. Жаутыков // Annuaire des ecoley Superieures Mechanique technique. Sofia. – 1977. – V. XII. – Iss. 1, 2. – P. 9–13.

38 Жаутыков О.А. Кривые второго порядка / О.А. Жаутыков // Квант. – 1977. – Вып. 8. – С. 22–26.

39 Жаутыков О.А. Математика и научно-технический прогресс / О.А. Жаутыков. – Алма-Ата: Мектеп, 1978. – 212 с.

40 Жаутыков О.А. Непрерывная зависимость от параметра и устойчивости решений счетных систем дифференциальных уравнений с последействием / О.А. Жаутыков // Вестн. АН КазССР. – 1981. – Вып. 11. – С. 57–62.

41 Жаутыков О.А. Метод бесконечных систем дифференциальных уравнений в задачах колебаний систем с распределенными параметрами / О.А. Жаутыков // Изв. АН КазССР. Сер. физ.-мат. – 1982. – Вып. 5. – С. 75–79.

42 Жаутыков О.А. Функционально-аналитический метод в задачах естественно-технических наук / О.А. Жаутыков // Дифференциальные уравнения и их применение. Руссе. – 1982. – С. 298–309.

43 Жаутыков О.А. Об одной задаче для уравнения в частных производных первого порядка / О.А. Жаутыков, Д.С. Джумабаев // Изв. АН КазССР. Сер. физ.-мат. – 1983. – Вып. 3. – С. 31–34.

44 Жаутыков О.А. Опыт работы физико-математического отделения Малой академии наук школьников Казахстана / О.А. Жаутыков, В.Ф. Грищенко, Г.В. Белянская. – Алма-Ата: Мектеп, 1983. – 26 с.

45 Жәутіков О.А. Жоғары математикаға кіріспе: Мұғалімдерге көмекші құрал / О.А. Жәутіков. – Алматы: Мектеп, 1984. – 216 б.

46 Жаутыков О.А. Математика на службе научно-технического прогресса / О.А. Жаутыков. – Алма-Ата: Мектеп, 1984. – 32 с.

47 Жәутіков О.А. Дифференциалдық теңдеулердің қолданылуы туралы әңгіме / О.А. Жәутіков. – Алматы: Мектеп, 1986. – 152 б.

48 Жаутыков О.А. Метод бесконечных систем дифференциальных уравнений в задачах колебаний

систем с распределенными параметрами / О.А. Жаутыков // Успехи механики. – 1986. – Т. 9. – Вып. 1. – С. 65–91.

49 Жаутыков О.А. Методы математики в естественно-технических науках / О.А. Жаутыков. – Алма-Ата: Мектеп, 1987. – 120 с.

50 Жаутыков О.А. Решение краевых задач на основе модификации метода Ньютона–Канторовича / О.А. Жаутыков, Д.С. Джумабаев // Изв. АН КазССР. Сер. физ.-мат. – 1987. – Вып. 5. – С. 19–29.

51 Жаутыков О.А. Дифференциальные игры нескольких лиц (с запаздыванием времени) / О.А. Жаутыков, С. Жаркынбаев, В.И. Жуковский. – Алма-Ата: Ғылым, 1988. – 318 с.

52 Жаутыков О.А. Методы математики в познании действительности / О.А. Жаутыков // Математизация науки: социокультурные и методологические проблемы. – Алма-Ата: Ғылым, 1990. – С. 61–86.

53 Жаутыков Орымбек Ахметбекович. Академик Академии наук Казахской ССР / Сост. Б.О. Жаутыков. Гл. ред. А.Ж. Саканова. Отв. ред. Р.О.Карибжанова, ген. дир. РГП «Ғылым ордасы». Редкол. Г.И. Бельгибаева, Л.Д. Абенова. – Алматы: Научная библиотека РГП «Ғылым ордасы», 2014. – 308 с.: фотогр. [Сер. «Видные деятели науки Казахстана»].