



SIXTY YEARS OF THE JOURNAL *PRIKLADNAYA MATEMATIKA I MEKhanika*†

The publication of the sixtieth volume of the journal *Prikladnaya Matematika i Mekhanika* (*Applied Mathematics and Mechanics*), the oldest Russian periodical specially concerned with problems in mechanics, has been completed. The journal was born in the difficult era of the restoration of the cultural development of the country, disrupted by the revolution and at the beginning of the extensive development of its national economy, which faced Russian academics with a number of important problems. The first All-Union conference on mechanics took place in Moscow in the spring of 1932. In December 1932, the second All-Union conference on the planning of scientific research in heavy industry heard a lecture on the results and problems of scientific research in the field of mathematics and mechanics. A decision was then taken to publish a series called *Applied Mathematics and Mechanics*, the name of which reflected the new view on the place of mechanics and among other sciences which arose at the start of the 1920s.

Applied Mathematics and Mechanics was initially conceived as a continuing publication in the form of non-periodical collections of papers. The first of these was issued by the State Technical Publishing House (Gostekhizdat) in Leningrad at the end of 1933 and opened with an address "From the Publishing House" that began with the following words which were written in the terminology of that time but have not essentially lost their significance today:

The great problems of socialist construction and the explosive industrialization of our country, which is unfolding, are a powerful stimulus for the upgrading scientific research in the U.S.S.R. Having been put into the service of a great construction, Soviet science rapidly took a step forward. The threads connecting applied mathematics and mechanics with the various fields of our socialist industry are numerous. Many of our scientific research institutes and organizations, which are scattered throughout the U.S.S.R., carry out research problems of applied mathematics and mechanics which answers needs arising in practice. The firm consolidation of all of this research and a strong bond between workers in the field of applied mathematics and mechanics are a necessary condition for success ...

To serve this association and thereby promote the advance of applied mathematics and mechanics in the U.S.S.R. was the challenge which the *Applied Mathematics and Mechanics* collections of papers set themselves.

Over a period of more than 60 years, this business-like programme is actively and successfully becoming true.

The first five issues of the journal were published in the years from 1933 to 1936 with the closest participation of the Leningrad Mechanical Scientific and Technical Society with an editorial board consisting of V. V. Golubev, A. N. Dinnik, A. I. Lur'ye (Chief Secretary), N. I. Muskhelishvili and Ye. L. Nikolai (Editor-in-Chief). Of the first members of the editorial board, A. I. Lur'ye remained an active member over a period of almost half a century. Among the authors of the first published papers were scholars who subsequently became very well known such as Ye. N. Blinova, I. N. Vekua, N. N. Davidenkova, I. A. Kibel', G. V. Kolosov, N. Ye. Kochin, L. S. Leibenzon, S. G. Lekhnitskii, L. G. Loitsyanskii, S. G. Mikhlin, P. F. Papkovich, L. N. Stretenskii and others.

In 1934, the Academy of Sciences of the U.S.S.R. moved from Leningrad to Moscow and, in the following year, a technical sciences division with a theoretical mechanics group was founded in the academy. Because of this, it proved to be more convenient to deliver the collections of papers *Applied Mathematics and Mechanics* under the aegis of the Academy of Sciences of the U.S.S.R. Starting from 1937, the publishing house of the Academy of Sciences of the U.S.S.R. began to issue a new series, the journal *Applied Mathematics and Mechanics*, the continuous numbering of the volumes of which was continued, but with the removal of the subtitle "New Series" which followed shortly afterwards.

At first, B. G. Galerkin, President of the Technical Mechanics Group of the Division of Technical Sciences of the Academy of Sciences of the U.S.S.R., headed the editorial board of the journal and among the first members of this board were A. N. Krylov, M. A. Lavrent'yev, V. I. Lur'ye, N. I. Muskhelishvili, A. I. Nekrasov, Ye. L. Nikolai, S. A. Chaplygin and others. In the following years, the

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editorial board was repeatedly replenished, as a rule, with the leading specialists in mechanics in the country. The prominent Soviet scientist and organizer of science, President of the Academy of Sciences M. V. Keldysh, who proved to be an inestimable supporter of the journal, was a member of the editorial board over a period of almost four decades. After B. G. Galerkin, N. G. Chetayev (1946–1959) and L. A. Galin (1960–1981) became editors-in-chief of the journal. The editor N. A. Talitskikh, who, in particular, concerned himself with attracting the creative power of youth to the journal and is well known to every senior scientist, carried out a large amount of organizational work on the journal for more than 30 years (1939–1971).

Prominent scientists participate in the publication of the journal and a list of these scientists has been regularly printed in the journal since 1940. It is almost impossible to find a well-known specialist in mechanics in Russia who has not published in the journal.

The high international authority of the journal is recognized by the fact that, since 1958, it has been published in English translation in Great Britain.

Today, Russia is faced with new difficult and grandiose problems in the development of science and technology. A not insignificant role in solving these problems will be played by mechanics, which is simultaneously a fundamental science and the basis of direct applications in various fields of technology. Together with the problems which are raised by the internal logic of the development of science, the problem of the study of predominantly non-linear phenomena, in which mechanical processes occur under conditions of high velocities and extreme temperatures, and of phenomena in which mechanical processes depend very much on physical and chemical processes which, in turn, alter the conditions under which the latter processes occur, continue today to face mechanics. New problems require the further development both of mechanics itself as well as the divisions of mathematics relating to it, namely, control science, physics, chemistry, biology, Earth and space science and the coordination of the interaction between scientists in different fields.

Applied Mathematics and Mechanics henceforth sees its role as serving the development of both the fundamental and applied aspects of mechanics and in unifying the endeavours of Russian scientists for this purpose.

Translated by E.L.S.