

OBITUARY

SERGEI PAVLOVICH STRELKOV

(SEPTEMBER 18, 1905-APRIL 2, 1974)



On April 2, 1974 Sergei Pavlovich Strelkov, one of the most senior professors of the physics department of Moscow University, died suddenly.

Sergei Pavlovich Strelkov, along with A. A. Andronov, A. A. Vitt, S. É. Khaikhin, and G. S. Gorelik, was one of the most outstanding representatives of the scientific school founded by Academician L. I. Mandel'shtam.

In 1927 Sergei Pavlovich entered the physicomathematical school of Moscow University, finished the physics department in 1931 and entered the graduate school where he studied under the supervision of L. I. Mandel'shtam in the theoretical-physics department.

The first scientific paper by Sergei Pavlovich was devoted to an investigation of self-oscillations in a mechanical system (a Froude pendulum). Sergei Pavlovich's candidate's dissertation was one of the first dissertations defended in the physics faculty of Moscow University and was devoted to an investigation of self-oscillations of various bodies in a stream of liquid or gas. For many years this topic remained the main direction in Sergei Pavlovich's scientific research. In 1968 S. P. Strelkov was awarded the N. E. Zhukovskii first prize and gold medal for a cycle of papers on the electromechanical simulation of the flutter of an airplane wing. Working at the central Aerohydrodynamic Institute, S. P. Strelkov made a major contribution to the investigation of harmful self-oscillations of an air stream in aerodynamic tubes having an open working section. These papers, which were written in 1940, formed the contents of S. P. Strelkov's doctorate dissertation.

Without breaking his ties with Moscow State University and the Central Aerohydrodynamics Institute, S. P. Strelkov arrived in Gor'kii in 1938 where he worked at the University until 1940. He retained his close ties with the Gor'kii radiophysicists after he returned to Moscow. From the founding of the journal "Radiofizika" until 1973 he was a member of the editorial board of this journal.

In 1943 Sergei Pavlovich became a professor in the department of oscillations at Moscow University and began to read a fundamental course of lectures on the theory of oscillations. Continuing the tradition

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of L. I. Mandel'shtam in creating the theory of oscillations as an independent field of physics, Sergei Pavlovich at the same time created a new original lecture course that was more closely related to the engineering problems which had developed at that time. Based on his lecture course, S. P. Strelkov wrote the book "Introduction to the Theory of Oscillations," one of the most original books on this topic. The book has been printed in several editions and has been translated into many foreign languages. Sergei Pavlovich Strelkov created his own scientific school in the theory of oscillations, and many of his students have now already become candidates and doctors of science.

Along with his scientific work, his teaching, and his interest in practical applications of oscillation theory, Sergei Pavlovich devoted a great deal of attention to laying the foundations of physics education for students at the physics, mechanics-mathematics, and engineering mathematics and cybernetics departments of Moscow State University over a period of 40 years. Having traveled the route from assistant to professor, and then to head of the department of general physics, Sergei Pavlovich played an enormous role in the creation and establishment of the modern course in general physics.

Although he commanded a brilliant mastery of mathematical techniques, Sergei Pavlovich never diverted students from the essence of the matter by using efficient mathematical operations preceding the exposition of the physical phenomenon under discussion. To explain the essence of the classical phenomenon using a simple example, to resort to a clear lecture demonstration – this is what Sergei Pavlovich legitimately saw as the principal problem of teaching the general physics course.

The well-known mechanics textbook written by S. P. Strelkov has been republished twice. In the ten days before his death Sergei Pavlovich submitted the manuscript of a new considerably reworked edition of his deservedly popular book. When Sergei Pavlovich was asked of what new material he introduced into his book, he answered that he tried first of all to expound the physical principles of mechanics more clearly, more convincingly, and more extensively. Over the past quarter century there have been three printings of the assignment book for the general physics course; one of the principal authors of this book, who determined the entire style of this important text, was S. P. Strelkov. The assignment book has been published not only in our country but also abroad, and for several decades it has determined the progressive style of seminar studies in a general physics course.

In recent years S. P. Strelkov devoted a great deal of attention to reading lectures on the physical foundations of mechanics in the graduate studies department at Moscow State University; he tried to enrich this course with new ideas and new lecture demonstrations. Just three days before his death Sergei Pavlovich found time with his usual painstaking care to order lecture demonstrations for his next lecture scheduled for April 5th – a lecture that he was fated not to deliver.

In 1955 Sergei Pavlovich headed the department of general physics for the mechanics-mathematical faculty. The majority of associates who are now working in the department are Sergei Pavlovich's students or were brought there at his personal invitation. Sergei Pavlovich was not only the organizer of the department. He was its solicitous father. A father who had an infinite kindness, an unfailing interest, and an inexhaustible patience. All of the associates of the department are infinitely thankful to him for this.

Sergei Pavlovich was amazingly young in spirit. He was young in his lively perception of everything around him, everything that was going on. Everything interested him. One could discuss any problem with him and always find a lively response. And therefore it is not accidental that death took him immediately after a seminar at which the newest problems in physics were discussed.

The bright memory of Sergei Pavlovich will long be cherished in the hearts of all of us who worked with him and experienced the joy of knowing him personally.