

Viktor Pavlovich Maslov. On the occasion of the 90th anniversary

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This issue and part of the next issue of the journal “Mathematical Notes” are dedicated to the jubilee of the Editor-in-Chief Academician Viktor Pavlovich Maslov, who celebrated his ninetieth birthday in 2020.¹



Viktor Pavlovich Maslov.

Viktor Pavlovich Maslov is an outstanding Russian scientist and teacher. His famous work in mathematical physics, differential equations, functional analysis and geometry, quantum mechanics, wave theory, statistical physics, and field theory gained worldwide fame and led to the emergence of new areas of scientific research in Russia and abroad. There are many important concepts due to Maslov such as Lagrangian manifolds and nonstandard characteristics, which, together with terms that bear his name explicitly, including the Maslov index and the Maslov method, have become an integral part of modern science and gave names to rubrics in the Mathematics Subject Classification. In mathematical physics and differential equations, Maslov created the canonical operator, which entered the world science as the “Maslov canonical operator” and is a powerful tool for studying quantum wave states, the propagation of waves of various nature, and the behavior of wave fields near focal points and caustics. He discovered interesting properties of complex rays and semiclassical asymptotics with complex phases, and to describe them he introduced a new geometric object, the “Maslov complex germ.” The famous invariant discovered by him in symplectic topology, the “Maslov index,” has a wide range of applications. The asymptotic and operator methods developed by Maslov are actively used and developed not only in the classical equations of mathematical physics but also in the study of many problems closely related to statistical physics and quantum field theory, including the theory of

¹For reasons beyond the control of the Editorial Board, mainly related to the COVID-19 pandemic, the publication of the issue has been delayed until now.

superfluidity and superconductivity, the soliton quantization method, and quantum field theory in strong external fields and curved space-time, as well as the method of expansion in the reciprocal number of particle types. Maslov created new methods in control theory, which gained many followers. An important role is played by Maslov's research on the relationship between thermodynamics and analytic number theory. Along with his work on mathematics and mathematical physics, his original ideas and research on economics and environmental safety are known. Of great practical importance is the work on modeling the consequences of the catastrophe at the Chernobyl nuclear power plant.

Viktor Pavlovich pays great attention to the education of young scientists. Under his leadership, one of the leading mathematical schools in Russia was created. He brought up a number of talented scientists, candidates and doctors of sciences. V. P. Maslov is actively involved in scientific and organizational work, being the Editor-in-Chief of the Russian Journal of Mathematical Physics and a member of the Editorial Boards of several international journals. Scientific and pedagogical activity brought Viktor Pavlovich well-deserved recognition: he is a winner of the Lenin Prize, the State Prizes of the USSR and the Russian Federation, the Demidov Prize, and the "Triumph" Prize. He was awarded the Lyapunov gold medal and other honorary awards and prizes.

The Editorial Board and the authors of the journal wish Viktor Pavlovich Maslov further success in his creative work, good health, and long life.