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GEORGIĬ ABRAMOVICH GRINBERG (on his Seventieth Birthday)

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JUNE 16th is the 70th birthday of the outstanding scientist, well known specialist in the field of mathematical physics and its application to technical problems, Corresponding Member of the USSR Academy of Sciences, Georgiĭ Abramovich Grinberg.

Grinberg was graduated from the Physico-mechanical Department of the Leningrad Polytechnic Institute, organized in 1919 at the initiative of Academician A. F. Ioffe, which played a major role in the development of Soviet science. He was among the first graduates of this Department, which recently celebrated its 50th anniversary.

Grinberg started his scientific work while still a student, under the direction of Prof. A. A. Fridman. After being graduated from the Institute in 1923, he staryed there to teach in the departments of theoretical physics and mechanics. In 1933 he was appointed professor, and in 1935 he was awarded the degree of Doctor of Physical-mathematical Sciences without defending a dissertation. In 1946 Grinberg was chosen Corresponding Member of the USSR Academy of Sciences.

Grinberg's scientific activity is inseparably connected with the Leningrad Physico-technical Institute, in which he has actively participated, for more than 50 years, in the development of the most important scientific trends of modern physics and engineering. Since 1941 to this day he is in charge of the division of mathematical physics of the Physico-technical Institute of the USSR Academy of Sciences.

Grinberg is the author of more than 100 scientific papers devoted to different problems of mathematical and theoretical physics, mechanics, the theory of electromagnetic field, etc. An important cycle of these papers pertains to research on the theory of motion of charged particles in electric and magnetic fields, the results of which are of tremendous significance in such fields of physics and engineering as electron optics, the theory of accelerators, mass spectrometry, plasma physics, etc. Grinberg has developed a general theory of focusing of electron and ion beams; this theory, in particular, was the first to consider the inverse problem of the construction of the field given the beam characteristics. This cycle of investigations includes also research on the flow of current through vacuum devices both in the steady state and under transient conditions; this is of great importance for high-frequency engineering.

Grinberg has developed many original and effective methods for calculating electrostatic and magnetic fields. Of great theoretical and applied significance is his work on the calculation of static and alternating fields in inhomogeneous media and on diffraction theory. In particular, he proposed a theory for edge refraction, which has been universally recognized, he developed a method of shadow currents, which made possible a new approach to the solution of problems in the theory of diffraction of electromagnetic waves by thin conducting screens.

Grinberg has made major contributions to the development of methods of mathematical physics and applied mathematics. He is the author of a new original method of solving a broad class of inhomogeneous problems of mathematical physics; he obtained many interesting results pertaining to the theory of integral transformations and its applications, the theory of certain classes of singular integral equations, elasticity theory, magnetohydrodynamics, etc.

In 1966, Grinberg started a new cycle of research devoted to the development of exact and approximate methods of solving problems of mathematical physics with moving boundaries. This class of problems is of considerable interest in connection with many practically important problems of the theory of heat conduction, the theory of wave processes, etc.

In 1948 he published a monograph "Selected Problems of Mathematical Theory of Electric and Magnetic Phenomena," which was widely acclaimed in the Soviet Union and abroad and which was awarded a state prize.

Grinberg is among those scientists whose interests are not limited to theoretical work, but are constantly connected with timely problems of national economy. From 1929 through 1941, he was in charge of a theoretical group organized by him at the "Svetlana" plant, the work of which greatly contributed to the work of Soviet radio industry. Under his leadership, calculations were performed in connection with the design of one of the first cyclotrons in the Soviet Union. During the war 1941–1945 and in the postwar years, Greenberg took active part in defense work carried out by the USSR Academy of Sciences. He constantly helped workers in industry and in research institutes, and took active part in the work of technical and science councils, expert commissions, etc. He is a member of the editorial staff of the "Journal of Technical Physics."

Grinberg is a talented teacher of scientific cadres. At his initiative, a Department of Mathematical Physics was organized at the Leningrad Polytechnic Institute, and was headed by him for many years. Many of Grinberg's students and doctors and candidates of sciences.

Many years of fruitful scientific and pedagogical activity by Grinberg was highly valued. He was awarded the Order of Lenin, the Order of Labor Red Banner, and medals of the Soviet Union.

His comrades in work and many students wish him health and further creative success.

Translated by J. G. Adashko

ERRATA

In the article by V. S. Starunov and I. L. Fabelinskiĭ "Stimulated Mandel'shtam-Brillouin Scattering and Stimulated Entropy (Temperature) Scattering of Light" (Usp. Fiz. Nauk 98, 441, 1969—Sov. Phys.-Usp. 12, 463, 1970):

read $\left(\frac{\partial\varepsilon}{\partial T}\right)_\rho$ in place of $\left(\frac{\partial\varepsilon}{\partial T}\right)_p$ and $\gamma\chi$ in place of χ in formulas (90) and (93). Formula (98) should read:

$$g_{\mathrm{MB}}(\Omega)=\frac{|\mathbf{k}_1|Y^2}{32\pi n^2}|E_0^m|^2\left\{\Omega_{\mathrm{MB}}\beta_S\frac{\delta\omega_0+\delta\Omega_{\mathrm{MB}}}{(\Omega-\Omega_{\mathrm{MB}})^2+(\delta\omega_0+\delta\Omega_{\mathrm{MB}})^2}+\right.$$
$$\left.+\frac{\sigma}{Y\rho c_p}\frac{\left[4k_\omega nc+T_0\chi q^2\left(\frac{\partial\varepsilon}{\partial T}\right)_p\right](\Omega-\Omega_{\mathrm{MB}})}{(\Omega-\Omega_{\mathrm{MB}})^2+(\delta\omega_0+\delta\Omega_{\mathrm{MB}})^2}\right\}. \quad (98)$$