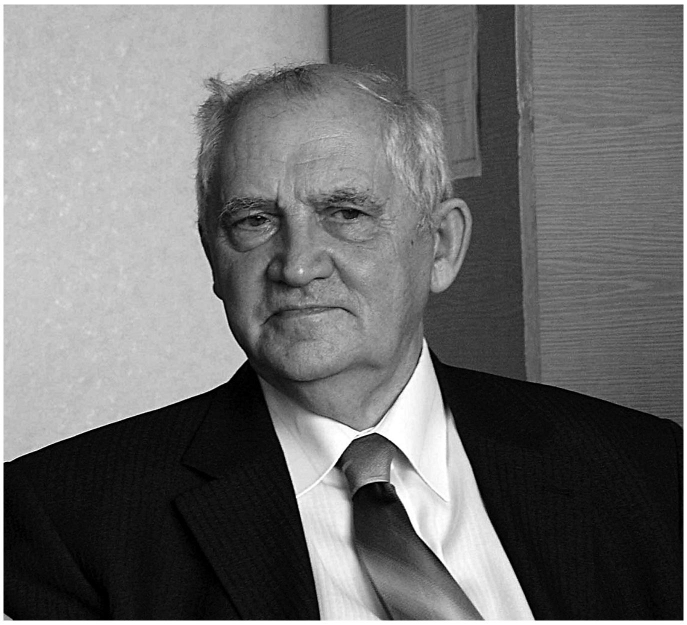

The 80th anniversary of Professor Anatolij Svidzynskyj

Professor Anatolij Svidzynskyj is a prominent scientist in the field of theoretical physics. His seminal results in quantum field theory, theory of superconductivity, functional methods in theoretical physics are widely recognized in the physical community, whereas his principal civic position, fruitful organizational activities, profound erudition in various fields of knowledge made him a distinguished personality in the modern Ukrainian society.

Anatolij Svidzynskyj was born on the 1st of March 1929 in a town of Mohyliv Podiljsjky (province of Vinnytsia, Ukraine). His father, Vadym Svidzynskyj originated from the family of a priest Evtymij Svidzynskyj and was an economist, his mother Kleopatra was a teacher of physics. In 1952 Anatolij Svidzynskyj graduated from physical department of Lviv State University receiving a diploma with highest honors and started postgraduate studies under supervision of a leading Lviv theoretical physicist Vasyl Milianchuk, later he continues his work in Moscow under supervision of a famous physicist and mathematician Mykola Bogolyubov. During less then two years he writes several papers in quantum electrodynamics and in 1956 defends a dissertation of a candidate of physics and mathematics (Ph. D. thesis) “Functional integration method in the theory of Green functions”. One of the most important results of the thesis was a demonstration of a non-analytic dependence of the electron Green function on the coupling constant in quantum electrodynamics. These results entered the fundamental book by M. Bogolyubov and D. Shirkov on quantum field theory. Since then the relations with M. Bogolyubov became for A. Svidzynskyj a longstanding and important inspiration for his scientific activities.

The next period of Anatolij Svidzynskyj’s life is connected with another center of physical thought in Ukraine – with Kharkiv, where he moved early in 1956. First he works at the Kharkiv polytechnical institute and after setting up the Institute for Low Temperature Physics and Ingineering in 1960 he gets a position in this institution. In 1972 Anatolij Svidzynskyj defends a doctoral thesis (habilitation) entitled “Current states in spatially-nonhomogeneous superconductive systems”. His study showed in particular, how one can apply the T-exponent parametrization method using the Poisson formula in order to obtain a functional representation for the partition function of a superconductor. Another important result obtained in the doctoral thesis was the theory of superconducting contacts. The problem concerning the current states in a superconductor – normal metal – superconductor contact that he had solved in the thesis was mentioned by John Bardeen in the list of the most difficult unresolved problems.

In 1975-1993 Prof. Svidzynskyj worked at the Simferopol State University, where he set up a chair of theoretical and mathematical physics. There he continued his research in the theory of superconducting contacts. The results were summarized in his book “Spatially-inhomogeneous problems of the theory of superconductivity” (Moscow, Nauka, 1983). Besides, he analyzed the problems of safety of nuclear power plants. This aspect of his activities finds its continuation in his stern position against constructing a nuclear power plant in a seismically hazardous region in the Crimea. It is due to the civic virtue of the Crimean inhabitants supported by the Ukrainian scientists that this construction was terminated.

One more city in Prof. Svidzynskyj’s life history is Lutsk – the center of Volyn province. There he moves in 1993 on the proposal of the Ukrainian government to organize a university on the base of the existing pedagogical Institute. In 1993-1995 he was the organizer and the first rector of Lesia Ukrainka Volyn State University in Lutsk, where he also founded a chair for mathematical and theoretical physics. His work of this period was especially fruitful with respect to writing numerous textbooks in theoretical and mathematical physics. Beneath them one should mention his “Mathematical methods of theoretical physics” (Kyiv, Olena Teliha Publ. House, 1998 – improved and enlarged 2nd and 3rd editions appeared later in Lutsk and the 4th edition was published by the Bogolyubov Institute for Theoretical Physics in Kyiv), “Lectures in thermodynamics” (Lutsk, Vezha, 1999), “Microscopic theory of superconductivity” (part 1 – Lutsk, Vezha, 2001; part 2 – Lutsk, Vezha, 2003), “Lectures in physics of superconductivity” (Lutsk, Vezha, 2003, together with O. Vilihursjky), “Introduction to special relativity” (Lutsk, Vezha, 2007).

Prof. Svidzynskyj is widely known not only for his work in the field of physics. He is an author of papers and books in cultural studies, philosophical problems of natural sciences, history. People in Ukraine were greatly influenced by Svidzynskyj’s ideas and acknowledge his numerous publications, statements and addresses in mass media about such problems as moral aspects of nuclear power engineering, the status of national minorities in the Crimea, introducing reforms in the educational system. Those who were lucky to read short stories by Anatoly Svidzynskyj recognize him as a talented and original writer. Recently, he published a book about his uncle, one of the most prominent Ukrainian poets of the XX-th century Volodymyr Svidzynskyj.

Editorial Board of Condensed Matter Physics, colleagues-physicists congratulate Prof. Svidzynskyj on the occasion of his anniversary. We wish him to stay in good health and to serve us for many more years as an example of a Scientist and of an Intellectual.