

In memory of Vladislav Vladimirovich Kirsanov

Vladislav Vladimirovich Kirsanov, one of the leading specialists in radiation solid state physics and computer simulation, a well known Russian scientist, DSc in physics and mathematics, corresponding member of the Russian Academy of Sciences, Honorary Scientist of the Russian Federation, member of the American Mathematical Society and American Computer Society, professor of higher mathematics of Tver Technical University died after a severe illness at the age of sixty. His untimely departure is a heavy loss to science and a bitter, inconsolable blow for his wonderful family, numerous students and colleagues and friends who deeply respected and loved him. Only six months before his death, on October 11, 1997 Vladislav Vladimirovich celebrated his 60th anniversary in Paris, among colleagues and friends. Tiredness was not an uncommon feeling for him by that time but his mood was exceptionally scintillating, and he was full of plans and new ideas. The first Russian-French seminar on radiation effects in reactor materials had just ended; the participants had a grand tour of Normandy and completed their work in Paris, in the wonderful building of the French Institute; they visited the Masarini Library, had a boat trip along the Seine, marvelled at the numerous highlights of the city; and on the eve of returning to Moscow, in the evening, they gathered in the flat of an Italian friend and toasted Vladislav Vladimirovich's health, his impressive achievements in science and his future successes. It was virtually impossible at that moment to allow the thought that this was Kirsanov's last birthday party.

V V Kirsanov was born in the town Tver near Moscow. In 1960 he graduated from the energy faculty of the Ural Polytechnical Institute, and in 1965, from the physics faculty of the Ural University. His first work position was that of a senior engineer at the Ural Polytechnical Institute, where he soon headed a problems-oriented laboratory. From 1965 to 1974 Kirsanov was a senior research scientist of the Research Institute of Atomic Reactors in Melekes. Then he moved to Alma-Ata, where for twelve years he headed a department in the Nuclear Science Institute. Ultimately Kirsanov returned to the town of his youth, Tver. Here he held the chair of higher mathematics and headed the computer simulation laboratory of Tver Technical University; from 1987 to 1993 Kirsanov also acted as vice university director for research.

The scope of research fields that interested Kirsanov was immensely wide. Nevertheless, his main interest always lay with solid state physics and materials science, while his pet and love in science were always mathematical modelling and computer experiment. Kirsanov was the first to apply



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computer simulation techniques to studying the real structure of solids in this country. He was a pioneer in many branches of this extremely fruitful field. He wrote a number of truly seminal papers which are striking not only in the originality of his solutions of most complex problems but also by the formulations of these problems themselves. Kirsanov developed a comprehensive set of computer models of many-body processes that found applications to various areas of science and technology. These models helped to discover new mechanisms and phenomena taking place in the deformation, irradiation and annealing of solids. Kirsanov wrote a number of excellent review papers for Russian and Western physics journals and collected volumes, and also several monographs. *Numerical Experimentation in Atomic Materials Science*, published by EnergoAtomIzdat in 1990, became an essential book on the shelves of many a specialist in this promising field.

Kirsanov was the founder of a well known school of physics theorists who are active in computer simulation

techniques in solid state physics and materials science. He was also one of the creators and science supervisors of the permanent International Seminar on Computer Simulation of Structural Defects and Properties of Condensed Media. Kirsanov devoted much time to his work in the ‘Radiational Physics of Solids’ Scientific Council, affiliated to the ‘Physics of Condensed Media’ Joint Scientific Council of the Russian Academy of Sciences (he was vice-chairman of his Council). Kirsanov’s role in educating new generations of scientists, and in reorganizing higher education in general was very important. He was an excellent lecturer and benevolent advisor; three times (in 1994, 1997 and 1998) he received the degree of Soros Professor for his contribution to higher education.

Vladislav Kirsanov was an optimist, a romantic soul, ever in love with life. His talents were many, he loved mountains and sea, travelled a lot, worked and relaxed with equal gusto (although probably not enough of the latter). An article he wrote a year ago for the special volume on the 75th anniversary of Tver Technical University is profoundly symbolic and full of his social perception. Recalling his participation in the International Conference on Computer Simulation in 1994, he wrote: ‘the organisers of the conference have chosen Santa Barbara not only for its beauty: its white Spanish-style houses, its wonderful beaches and the peaks of the not too distant Rocky Mountains, but mostly for the proximity of Los Alamos — the first and foremost nuclear center in the USA, where a numerical experiment was designed for the first time to imitate processes inside atoms. Santa Barbara is a stone’s throw from both Los Alamos and the nuclear testing grounds in Nevada. Thank God, the orientation of today’s computer experiments has changed dramatically. Numerical experiments permeate all branches of knowledge nowadays, from microelectronics to space technologies. This was the reason why Santa Barbara welcomed representatives of several dozen countries, whose many tongues sounded softly and beautifully in the charming summer evenings. We wished to hope that the terrifying nuclear confrontation was the thing long of the past, that the fast approaching 21st century would bring very different worries, leaving much more space for simple human happiness, human feelings and beauty. At the same time, all the achievements of today’s science, including the enormous potential of mathematics and numerical experimentation, will serve the solution not of some pseudo-problems generated by pseudo-leaders but of pressing problems facing mankind’.

Numerous friends, students and colleagues of Vladislav Vladimirovich Kirsanov, all those who were lucky to know him and work with him, will forever remember this wonderful man and brilliant scientist.

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