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GEORGII Evgen'evich Chikovani suddenly died of severe heart disease on 13 March 1968 at the age of 39. Soviet physics has suffered a loss that is difficult to redeem. He died in the prime of his creative vigor, with his mind brimming with new ideas.

Chikovani was born in Tbilisi on 30 June 1928. On being graduated from school in 1945 he enrolled at the Tbilisi State University, from whose Department of Physics and Mathematics he was graduated in 1950. He started his research work early. His on-the-job graduate training at the Mt. Aragats High-Altitude Station resulted in a complete research project. While still a postgraduate student he, in his capacity as scientific worker for the Division of Cosmic Rays, Institute of Physics of the Georgian Academy of Sciences, took an active part in the solution of problems pertaining to the physics of elementary particles. At the new Mt. El'bruss High-Altitude Station, which was established with his participation, he carried out a series of interesting studies dealing with the physics of the elementary particles which had subsequently become termed "strange." These studies served as the basis for his Candidate dissertation, which he defended in 1960.

His discovery in 1963, together with a team of co-workers, of a new principle for the detection of elementary particles assured him a leading place among the experimenters in high-energy physics. His "track (streamer) spark chamber" has become a tool for research into elementary particles at many of the world's laboratories. Owing to the work of Chikovani and co-authors, Soviet science gained priority in the development of the streamer chamber with which the most radical improvement in the techniques of accelerator experimentation is associated.

In 1965 Chikovani was invited to work at the European Center for Nuclear Research (CERN), where he was active for one and one-half years. During that brief period, while working in an international group of experienced researchers, he developed new devices for the observation of elementary particles, such as large-gap (acoustic and filament) spark chambers with magnetostriction data recording.

In the course of that project it became possible to establish the existence of four new heavy mesons termed the boson resonances R, S, T and U. The masses of these resonances are:  $M_R = 1698$  MeV,  $M_S = 1929$  MeV,  $M_T = 2195$  MeV and  $M_U = 2832$  MeV.

In October 1967 Chikovani again traveled to Geneva on the invitation of CERN and carried out a new experiment resulting in the discovery of the fine structure of the lines corresponding to the  $A_2$  and R resonances. In February 1968 he returned home, feeling ill. During that period, at his suggestion, a new improved spectrometer for the analysis of heavy particle masses had been constructed, and he tested it out within a very short time. He succeeded in demonstrating that the new boson



spectrometer makes it possible to determine the spin and parity of certain resonances without resorting to the magnetic analysis of momenta. The spectrometer which he developed is a means of investigating boson resonances at energies much higher than had previously been possible.

Most of his 46 papers have received broad international recognition. The new principles of research into elementary particles and the new facts that he discovered have become an organic part of high-energy physics.

Chikovani was not only a brilliant experimenter with a magnificent grounding in theory, but also an outstanding expert in modern techniques of the machine processing of experimental data. That is why Soviet physics had placed such great hopes in him. Along with this he also was an excellent organizer. For many years, from 1951 to 1958, he was Deputy Chief of the El'bruss Expedition of the Institute of Physics, Georgian Academy of Sciences, as well as the director of all of its winter-

time trips. Between 1959 and 1962 he was the Deputy Director, and from 1963 until his last days, the Head of the Division of Cosmic Rays and High-Energy Physics at the above institute. For many years in a row he worked strenuously to develop the new high-power "Tskhra-Tskaro" installation, built in the mountains of Georgia. On joining the Communist Party in 1954, he regularly took part in the activities of the Party bureau at the Institute. As a scientist and a human being, Georgii Yevgen'evich Chikovani was exceptionally honorable, high-principled and generous. If I may say

so, he was a man of great purity, a man with a highly cultured and sophisticated intellect and great nobility of mind.

My creative collaboration and friendship with him over the span of 19 years, during all the stages, beginning with his first steps in science and ending with the last days of his life, were to me a source of continual and lofty spiritual inspiration. I think that this applies to everyone who knew him.

Transl. by E. Bergman