

Venedict P Dzhelepov 1913-99

Renowned Russian scientist Venedict Petrovich Dzhelepov died suddenly on 12 March. He was one of the founders of the Institute of Nuclear Problems (1948) and later of the Joint Institute for Nuclear Research in Dubna, where he was director (1956-88). From 1988 he was honorary director of the Laboratory of Nuclear Problems.

His long career in science has many landmarks. In 1949 he constructed what was then the world's largest proton synchrocyclotron, reaching 680 MeV. This was later (1984) converted into a high-current phasotron with a shaped magnetic field. He obtained pioneer data in nucleon-nucleon and pion-nucleon interactions, in the capture of negative muons by protons, and in the electron decay of negative pions.

New results were achieved in the multiple production of strange and neutral particles and in hypercharge exchange reactions. Dzhelepov was the first to obtain the fundamental, now classical, experimental results on muonic molecules and the muon-catalysed nuclear fusion of heavy hydrogen isotopes. The USSR Academy of Sciences awarded him the I V Kurchatov gold medal and prize for these investigations.

Dzhelepov was also well known for his work on high-current accelerator complexes in the 0.8-1.5 GeV range based on isochronous cyclotrons. He initiated and supervised the construction of Russia's first medical physics complex, based on the synchrocyclotron of the Laboratory of Nuclear Problems, for the proton treatment of cancer and for space medicine.

He was a corresponding member of the Russian Academy of Sciences, for many decades one of the leaders of the Nuclear Physics Division of the Russian Academy of Sciences, and a winner of Russian State prizes. As a member of IUPAP commissions, and ICFA and editorial boards of highly authoritative scientific journals, he made a substantial contribution to the development of the international scientific co-operation. Many eminent scientists in Russia and other countries learned much from working with him.