In Memory of V.P. Koptev

January 12, 2012, died Head of the Laboratory Meson Physics of Condensed Matter HEPD PNPI, Candidate of Physical and Mathematical Sciences VLADIMIR KOPTEV – the man who gave his entire life to the service of science.

Vladimir Koptev entered to work in a branch LPTI (now PNPI) in 1963 after graduating from the Leningrad Polytechnic Institute. While he was working at the institute, he rose from trainee to head a research laboratory.

Over the years of employment in PNPI Vladimir Koptev was a performer, organizer and leader of several cycles of work. Since the beginning of start PNPI synchrocyclotron he was actively involved in creating an experimental basis: setup and measurament of the low and medium energy π-meson channel's characteristics, of a unique muon channel, of the creation of high-energy neutron beams. Vladimir made an enormous contribution to the design and setup of the first detection system (named “hodoscope”) on the pion beam of the synchrocyclotron. A full cycle of high-precision measurements of differential cross sections for elastic πp-scattering has been the topic of his doctoral dissertation (1977). Under his supervision were carried out studies of $\pi^{\pm}$-mesons and "subthreshold"[1] K-mesons production in proton-nucleus interactions, as well as precision measurements of the π- and K-meson's lifetimes, the results of which are still the world's accuratest values.

Since 1986, over 25 years, Vladimir Koptev was head of the Laboratory Meson Physics of Condensed Matter. Under his leadership, Muon Spin Rotaton detector setup has been created. In present this is the exclusive experiment in Russia. The detector allows one to measure internal magnetic fields of condenced matter in the temperature range from 4 to 300 K and in external magnetic fields up to 1.5 kG. A lot of investigations of different materials (such as: spin-glass state materials, high-temperature superconductivity, shape memory alloys, rare-earth manganites and manganates, ferrofluids, chromium steels, and many more) has been carried out using this setup.

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1 below threshold of the elementary reaction

At the same time under the supervision of Vladimir Koptev work on design, construction and setup of the magnetic spectrometer ANKE (Jülich, Germany) has been was carried out. Experiments on "subthreshold" *K*-mesons production in proton-nucleus interactions, on mesons and hyperons production in *pp*- as wel as in *pn*-collisions in the close-to-threshold regimes has been performed.

As a man Vladimir Petrovich was a unique character. Althought he had a wide and characterized the fundamental approach to the problem's solution, he did not disdain to the practical things. Not all, perhaps, know that though Vladimir was a first-class physicist and experimenter, he possessed a remarkable mathematical ability, and could make a career as a specialist in mathematical and theoretical physics. Also, Vladimir had a wonderful gift of teaching, he had trained more than a dozen PhD-students. His special feature was the versatility, the ability to explore new directions in a short time, to go deep into the new physical as well as engineering problems, to give the desired results out of them. He was able to absorb the knowledge of their colleagues and staff, get them to give the maximum possible on the most important direction in order to achieve high performance of the laboratory. He was able to absorb the knowledge of their colleagues and staff very fast, to give the maximum of possible on the most important direction in order to achieve excellent performance of the laboratory. The work under the leadership of Vladimir Koptev was easy and very interesting, but of course hard. He always put forward new ideas, which were to be implemented.

F lot of work has been done under his direction. He always tried to keep his lab as world leader in works it was involved in (the μSR-studies as well as investigation of "subthreshold" production of *K*-mesons). Vladimir Koptev made a huge contribution into the fundamental science. This was possible because of his talent, dedication and perseverance in reaching this goal, uncompromising in dealing with scientific issues. The name of Vladimir Petrovich forever be remembered by members of his laboratory as well as by staff of the St. Petersburg Institute of Nuclear Physics.

.Staff of the Meson Physics of Condensed Matter Laboratory