

IN MEMORY OF ANATOLY SERGEYEVICH LEONOVICH (JULY 18, 1957–APRIL 22, 2023)

Russian and world science has lost one of its remarkable members. On April 22, 2023, after a long illness, Anatoly Leonovich, a leading researcher at the Institute of Solar-Terrestrial Physics SB RAS, a prominent specialist in the field of magnetospheric physics, passed away.

His main scientific achievements concern the development of the theory of hydromagnetic waves in Earth's magnetosphere. Anatoly Leonovich has made an important contribution to the development of the theory of such waves in realistic models of the magnetosphere, taking into account plasma and magnetic field inhomogeneities in all three coordinates, including nonuniform curvature of field lines. His works on studying the structure of transversally small-scale Alfvén waves in magnetospheric plasma, carried out jointly with V.A. Mazur, are widely regarded as classic. Important results were obtained by Anatoly Leonovich in physics of magnetohydrodynamic instabilities of magnetospheric plasma, which play an important role in transmitting solar wind energy to Earth's magnetosphere and in developing eruptive processes in near-Earth plasma. Extensive series of his papers are devoted to the study of the interaction between hydromagnetic waves and Earth's ionosphere, as well as of their role in auroral processes. The list of his works published in the most prestigious scientific journals contains more than a hundred of titles.

From the very foundation of the journal Solar-Terrestrial Physics, Anatoly Leonovich was one of the most active members of the Editorial Board. He had a lot of competent and thoughtful reviews of articles, which prompted the authors to significantly improve their manuscripts. His reviews were always friendly and at the same time informal, containing suggestions on how to finalize papers, which hit exactly the target.

It is impossible not to note personal qualities of Anatoly Leonovich. His colleagues considered him a standard of scientific and human integrity, a true friend dependable in difficult times. He was actively interested in history, art, liked to go camping, knew the nature of his native region very well. Anatoly Leonovich was a real patriot in the true sense of the word, seeing one of his main tasks in the development of scientific potential of his native country.

We all feel the pain of loss very deeply. Nothing can make up for this loss. The best memory of Anatoly Leonovich will be to continue and develop his scientific school. The memory of him will remain with us forever.