

Konstantin Kholshchevnikov 1939–2021

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On January 10, 2021, after a serious illness, Konstantin Vladislavovich KHOLSHEVNIKOV, Professor of Saint Petersburg State University, Head of the Department of Celestial Mechanics of Saint Petersburg University, Doctor of Sciences in Physics and Mathematics, passed away.

All scientific and teaching activities of Professor Kholshchevnikov were associated with Saint Petersburg University. Since 1970, for fifty years, he was in charge of the Department of Celestial Mechanics. He is the author of over 250 scientific papers, including 13 monographs and textbooks.

Konstantin Vladislavovich was an amazingly versatile scientist; it is not easy to name a field of celestial mechanics, to which he and his numerous students would not have contributed. He obtained outstanding results in the gravitational potential theory and in studies of the N-body problem. Fundamental contributions were made by Konstantin Vladislavovich in the theory of the classical two-body problem, restricted three-body problem, substantiation of asymptotic methods. In the field of applied astronomy, possibilities for transportation in deep space using gravity assist maneuvers and solar sails were presented and explored, under his guidance. Always, until his last days, he was interested in the problem of the stability of the solar and exoplanetary systems.

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In recent years, Konstantin Vladislavovich has been actively engaged in research related to the problem of asteroid hazard. He proposed and investigated methods for the removal of asteroids from collisions with the Earth using a low-thrust engine. Until the last days of his life, Konstantin Vladislavovich continued active work as a leader of various scientific projects. Already seriously ill, he continued to stimulate the active work of his students and colleagues; his scientific articles have been continued to be published.

The merits of Konstantin Vladislavovich were marked by numerous awards, among them, notably, Leonard Euler Medal of the Academy of Sciences of the USSR and S.P.Korolev Medal of the USSR Cosmonautics Federation. Minor planet 3504 Kholshchevnikov bears his name.

Konstantin Vladislavovich created a scientific school, which includes a number of actively working specialists in celestial mechanics. Among his students, there are many PhDs and Doctors of sciences in physics and mathematics.

Also another wonderful pedagogical enterprise, of which he was a permanent leader for about thirty years, will be heartily memorable to its participants for its cooperative and friendly atmosphere: the Kourovka Winter Astronomical School, annually held at the Ural (Yekaterinburg) University. There, students and postgraduates learned to report and discuss their first scientific works together with leading astronomers of Russia.

Konstantin Vladislavovich was always in the center of attention of any society, bringing positive emotions. His lectures and speeches were always distinguished by brilliance and a wonderful sense of humor. An episode can be recalled, when, in his lecture at the IAU Symposium dedicated to the 200th anniversary of Bureau des Longitudes (Paris, 1995), Konstantin Vladislavovich allegorically presented to the audience a graph (illustrating the “concept of a d’Alembertian function of a pair of complex variables specified within an infinitely long bottle with a narrowing neck”) as “une bouteille de champagne.”

Konstantin Vladislavovich knew how to find a common language with a variety of people. This, as well as his inexhaustible optimism, helped him to maintain a working creative atmosphere and excellent human relations at the Department of Celestial Mechanics for half a century under any external circumstances.

His outstanding parents must be remembered. Konstantin Vladislavovich was born into a family of hereditary intellectuals. His father was a professor at the Faculty of philology of St. Petersburg University, a specialist in literary and poetry studies, and his mother was director of the Museum of the famous Russian poet Nikolay Nekrasov in St. Petersburg. Konstantin Vladislavovich knew poetry perfectly and wrote poems himself with wonderful skill.

Konstantin Vladislavovich’s colleagues at Saint Petersburg State University and at the Russian Academy of Sciences are well aware of his wonderful human qualities. He was a man of rare charm and spiritual sensitivity, knew how to enjoy life and bring the joy of communication. Konstantin Vladislavovich was the soul of the staff of the Department of Celestial Mechanics. The untimely death of Konstantin Vladislavovich is a terrible loss for his colleagues and students.

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