Mykola Komarnytskyi

(25.05.1948 – 21.04.2016)

Distinguished Professor of Ivan Franko L'viv National University, Doctor of Sciences Mykola Komarnytskyi passed away on April 21, 2016. His sudden death is a great loss for L'viv mathematicians and for the entire Ukrainian mathematics community.

Mykola Komarnytskyi was born in 1948 in the village Komarnyky of the L'viv Region. After graduating of high school, Mykola was enrolled to the Department of Mechanics and Mathematics of Ivan Franko L'viv University. In 1971, after graduating the University he was admitted to the Department of Algebra of Institute of Physics and Mathematics in L'viv.

In February 1979 he was hired in the Department of Mechanics and Mathematics of L'viv University. Since that, his entire life was tightly connected to this Department. In 1993-1995 as a senior researcher he worked hard on many important algebraic problems. His Doctor of Sciences thesis was defended in 1998. Since 1998 he worked a professor of the Department of Algebra and Topology, and in 2002 he became the Chair of this department.

Mykola Komarnytskyi made an impressive contribution in many areas of modern algebra: The theory of rings and modules, the model theory,

the categorical logic. He solved the Cozzens-Faith problem on ultrapowers of principal ideal domains. We should also mention his attention-grabbing proof (coauthored by Ivanna Melnyk) of axiomatizability of the class of noncommutative Prüfer rings. Mykola Komarnytskyi has introduced a new class of elementary divisor rings, called the almost invariant elementary divisor rings, and obtained a partial solution for these rings of the Warfield problem (to find an internal characterization of rings such that every finitely presented module decomposes into a direct sum of cyclic submodules). He showed (with Bogdan Zabavsky) that any elementary divisor distributive domain is a duo-domain.

Mykola Komarnytskyi proved that if every ideal of a commutative Bezout domain is transfinite nilpotent, then this domain is adequate, and therefore it is an elementary divisor ring. He also applied the obtained results to simplification of the formulas of the first order theory of modules.

Mykola Komarnytskyi (with Halina Zelisko) considered the lattice of left ideals of a ring which is an ultraproduct of a family of Noetherian V-domains, obtained the formula describing maximal left ideals in such ultraproduct and constructed the spectrum of an ultraproduct of principal ideal V-domains.

In addition to his prolific research work, M. Komarnitskyi was also actively engaged in teaching and especially in finding talented students and engaging them to research. Professor Mykola Komarnytskyi served as an advisor of six Candidate of Sciences theses. He organized international algebraic conferences in L'viv and served as an editor of mathematical journals. In particular, he was a vice-editor of Algebra and Discrete Mathematics.

In 2014, for his many years of productive scientific and educational work, Mykola Komarnytskyi was awarded the title of Distinguished Professor of Ivan Franko L'viv National University.

Professor Komarnytskyi was not only an outstanding mathematician but deeply and widely educated man with very widespread outlook. He had many friends in Ukraine and over the world. The cherished memory of Mykola Komarnytskyi will forever remain in the minds and hearts of his colleagues, students, family and friends.

Yuriy Drozd, Volodymyr Kirichenko, Leonid Kurdachenko,
Fedir Lyman, Anatoliy Petravchuk, Vasyl Petrychkovych,
Igor Subbotin, Vitaliy Sushchansky, Bogdan Zabavsky,
Myhailo Zarichnyi, Anatolii Zhuchok, Yurii Zhuchok