OBITUARY

LEV ÉRNESTOVICH ÉL'SGOL'TS

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On October 24, 1967 Prof. Lev Érnestovich Él'sgol'ts, the eminent Soviet mathematician and Doctor of Physicomathematical Sciences, died tragically.

L. É. Él'sgol'ts was an outstanding specialist in differential equations and variational calculus and was one of the founders of the Soviet school of the theory of differential equations with a divergent argument.

He was born on July 5, 1909 in Leningrad. In 1931 he graduated from Moscow University, and in 1933 he was engaged by the same university for a period of almost thirty years. In 1939 he was awarded a masters degree, and in 1960 he received the degree of Doctor of Physicomathematical Sciences.

From 1961 until the last days of his life L. É. Él'sgol'ts worked at the Patrice Lumumba Friendship of Nations University.

His principal scientific interests were centered at first in topology and variational calculus, then later in differential equations with a divergent argument.

The first investigations of L. É. Él'sgol'ts were directed toward the development of topological methods in the analysis of variational problems. In particular, he worked out topological methods for estimating the possible number of critical points of any given type on manifolds, subsequently generalizing these methods to the case of functions defined on certain classes of spaces that are not manifolds. In 1935 he collaborated with S. V. Frolov in the introduction of a new topological invariant, namely the length of a set with respect to a certain manifold; this invariant provides a lower estimate of the category and is well-suited to calculations.

L. É. Él'sgol'ts also studied variation problems with a delayed argument and drew an analogy of the fundamental necessary and sufficient conditions.

In 1950 a seminar on the theory of differential equations with a divergent argument was instituted at Moscow University under the direction of L. É. Él'sgol'ts; its participants continued the fundamental research of A. D. Myshkis in this particular area. In the studies of L. É. Él'sgol'ts on the theory of differential equations with a divergent argument he derived existence and uniqueness theorems, investigated boundary-value problems, developed methods of approximate integration, analyzed problems concerning the existence of periodic solutions and stability, and investigated the points of rest of dynamical systems with a divergent argument.

L. É. Él'sgol'ts was the author of about eighty published works (including ten books) on various aspects of mathematics.

His activities in an administrative and public service capacity were rich and varied. The research seminar that he organized in the theory of differential equations with a divergent argument brought together all the Soviet mathematicians working in this field.

L. É. Él'sgol'ts was a brilliant teacher, as well as an exceptionally warm and sensitive person.

He maintained an intimate and productive working affiliation with the Mathematics Institute of the Academy of Sciences of the Ukrainian SSR where he presented many papers and often sat on the board of review for dissertations.

The death of Lev Érnestovich Él'sgol'ts comes as a grievous loss to Soviet mathematicians.