

Tibor Katriňák

Obituary: Eva Gedeonová (1940--1993)

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OBITUARY: EVA GEDEONOVÁ 1940–1993

On January 24, 1993 we lost an outstanding mathematician, an excellent teacher and a dear friend, Doc. RNDr. Eva Gedeonová, CSc. She died of cancer after 14 months of struggle.

Born as Eva Langová in 1940 in Bratislava, Slovakia, she finished her high school in 1958, and afterwards she continued her studies at the Faculty of Sciences of Comenius University in Bratislava in the years 1958 – 1963. She was a brilliant student.

In 1963 Eva took the position of assistant lecturer at the Department of Mathematics of Comenius University in Bratislava. Here she first held tutorials in Calculus and Linear Algebra, later she held lectures on Algebra, Linear Algebra and Analytic Geometry. She was considered as an exceptionally good teacher.

Eva began her research career as a CSc. (= Ph. D.) student of Professor Milan Kolibiar. She finished her CSc. studies in 1972 by submitting a highly original thesis devoted to the Jordan-Hölder theorem for lines (see [1] - [3]). In 1980 she was appointed as Docent (= Senior Lecturer) after her “habilitation” with a thesis entitled “Covering graphs of lattices” (see [6], [7]).

This is not a place to attempt to describe all Eva’s contribution to mathematics. But there are two-three results which should be mentioned here:

Let L be a lattice. One can introduce the following ternary “betweenness” relation T on L :

$axb \in T$ if and only if $(a \wedge x) \vee (x \wedge b) = x = (a \vee x) \wedge (x \vee b)$. The following subsets $G(a, b) = \{x \in L : axb \in T, a, b \in L\}$ of L are of interest. V. Glivenko [A1] has shown that $G(a, b)$ is a convex sublattice of L , whenever L is modular. Eva proved:

(a) $G(a, b)$ is a lattice (a sublattice of L) for any $a, b \in L$ if and only if L is p -modular (p -modular, l -modular and dually l -modular) (see [3]). (A lattice L is said to be p -(l -)modular if L does not contain the lattice of Fig. 1 (Fig. 2) as a sublattice. Dually l -modular means that L does not contain the dual lattice of that of Fig. 2 as a sublattice.)

(b) The class of all congruence- p -modular equational classes of universal algebras is a strong Mal’cev class (see [4]).

Let L be again a finite lattice. One can assign to L a graph $C(L)$, the covering graph of L , as follows: vertices of $C(L)$ are elements of L and edges are those pairs $(a, b) \in L^2$, where a covers b or b covers a in the lattice L . A. Kotzig [A2] introduced the centrally symmetric covering graphs. The corresponding lattices are termed CS -lattices. In [A3] A. Kotzig conjectured: Every CS -lattice is a direct product of some K_{2n} lattices (see Fig. 3). Eva proved:

(c) Kotzig’s conjecture is (in general) not true. She constructed a counterexample;

(d) For p -modular CS -lattices, Kotzig’s conjecture is true (see [9]).

Eva was a passionate academic of highest standards and both a deeply devoted teacher and a profoundly committed research mathematician. She was holding various important offices at Comenius University, including, for some years, that of the vice-dean of the Faculty of Mathematics and Physics, and was active in committees of Mathematical Olympiad. Eva was

a regular participant and organizer of Summer Schools on Universal Algebra and Ordered Sets in the former Czechoslovakia.

Besides all this, she was an exemplary mother to her two sons, a loyal friend to all who were close to her, and a warmly congenial hostess to her visitors. The gap that she has left in the lives of those who were close to her will be impossible to fill.

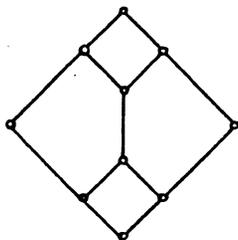


Figure 1.

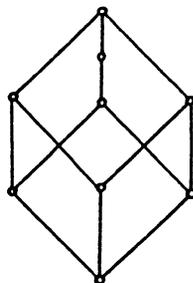
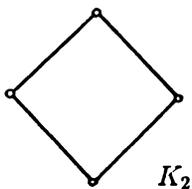
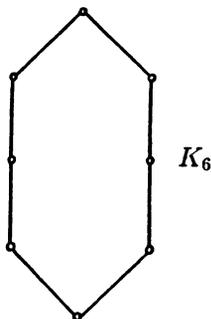


Figure 2.



K_2



K_6

Figure 3.

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LIST OF PUBLICATIONS OF EVA GEDEONOVÁ

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- [1] *Der Jordan-Höldersche Satz für unendliche Ketten in teilweise geordneten Mengen*, Acta Fac. Rerum Natur. Univ. Comenian. Math. **12** (1965), 41–50.
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