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A FAREWELL TO EVELYN NELSON

by Jiří ADÁMEK

Evelyn M. Nelson was born in 1943 in Hamilton. After finishing Westdale High School there she decided (against the recommendation of various advisers, but with full support of her parents) to study mathematics and natural sciences at the University of Toronto, switching after two years to McMaster University of Hamilton. Evelyn was a brilliant student, and her master's thesis became her first published paper [1]. In 1970 she completed her Ph.D. thesis supervised by Günther Bruns, the results of which were presented in her next paper [2]. She remained afterwards in the Department of Mathematics at McMaster University progressing from post-doctoral fellow to full professor (in 1983). Evelyn participated actively in the life of the mathematical community: she served as an editor of *Algebra Universalis*, was a member of several committees of the Canadian Mathematical Society, and wrote about 150 referee's reports and reviews. She was also active in university life; e.g., as a chairman of the Orientation Steering Committee and a member of the University Senate. She achieved excellent results while chairing the Unit of Computer Science in 1982-84 and when, a year later, the unit became a department, Evelyn was asked to become chairman again. But her illness forced her to decline.

Evelyn was enthusiastic and gifted, aiming at perfection in everything she did and enjoying it all vigorously: as a teacher, a visiting scientist (delivering about 30 invited lectures all over the world), or a mother of two lovely girls. But first of all, as a research mathematician. She was the author or co-author of approximately 40 research papers, and she was a fabulous person to collaborate with, contributing a lot and ready to appreciate the contribution of the others.

The first five papers of Evelyn were devoted to the lattice of equational classes of semigroups. There followed a series of more than twenty articles dealing with algebraic and categorical aspects of varieties of algebras, written alone or in a collaboration, mostly with Bernhard Banaschewski. They range from purely algebraic papers investigating equational compactness and injectivity, to purely categorical

ones, such as her very interesting characterization of power-objects in functor categories [30]. Her papers are well written and highly illuminating, throwing new light on difficult topics as, for example, the papers [18] and [25] concerning the idea of tensor product.

In the late 70's Evelyn took up the idea that algebraic problems arising in theoretical computer science call for an investigation performed by algebraists. That is how our close collaboration started. Together with Jan Reiterman, we spent a very intensive (and very enjoyable) month of Evelyn's visit in Prague to describe free continuous algebras. The result was our first joint paper [33], and our feeling that continuous algebras present a fruitful field of study. We continued that project, dealing with the logic [45], varieties [39] and other aspects of continuous algebras. The problem we found most difficult, and the solution of which we enjoyed the most, was whether continuous algebras have bounded generation - usually they do, but not always, see [38]. Furthermore, Evelyn made a clear analysis of other algebraic concepts arising in computer science, e.g., iterative theories [35] and varieties of "if - then - else -" [42].

Evelyn Nelson was not only a brilliant mathematician, but also an exceptionally enjoyable person. She was admirable in her fight with cancer, concealing her difficulties and trying to make the most of life. I see her clearly the day she was leaving Prague, only two months of life left: she was poised and full of mathematical projects, on some of which we are still working. She died on August 1, 1987, and she is being missed by many.

LIST OF PUBLICATIONS OF E.M. NELSON

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