



Burg Frankenstein, Germany, 1976

**Ivan Rival 1947–2002**

*This issue of Algebra Universalis is dedicated to the memory of Ivan Rival.*

## Ivan Rival 1947 – 2002

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Ivan Rival passed away in January of 2002. This issue of Algebra Universalis is dedicated to his memory. An extensive Obituary and Publication List, written by Dwight Duffus, can be found in the journal *Order* [1], which was founded by Ivan in 1984 and nurtured by him throughout the rest of his life.

Born in 1947, he completed his Ph.D. in 1974 here at the University of Manitoba, about halfway through his much too short life. A copy of his thesis sits in the Reading Room of the Department of Mathematics, and it tells a number of stories.

The first comes while paging through the usual boilerplate at the beginning of the thesis. The title is “Contributions to combinatorial lattice theory”. The oral defense report form from the Faculty of Graduate Studies lists George Grätzer as advisor, R. Padmanabhan and Craig Platt as committee members, and Rudolf Wille as external examiner; it is dated February 20, 1974. On the next page, in the Acknowledgments, he thanks George Grätzer and Rudolf Wille, and their respective research seminars. Ivan had spent the summer semester of 1973 in Darmstadt as a guest of the Arbeitsgruppe Allgemeine Algebra. This gives only a hint of the mathematical vigor and interaction within and between these two seminars. You really had to have taken part in each of these seminars to fully appreciate them; Ivan was fortunate to have been there (and so was I).

The next story is in the Table of Contents. It lists a meager thesis of only 50 pages . . . and 11 appendices! Of course, the story is in the appendices, each of which is a paper authored or co-authored by Ivan as a Ph.D. student. Physically, they are either reprints or photocopies of preprints. This was somewhat controversial, as the format of the thesis was definitely non-standard. This point was overcome by the fact that 9 of the 11 had already appeared in print or had been accepted for publication in prestigious mathematics journals. Those 9 articles, numbers 124, 125, 128–131, 133–135, in the Publication List published in [1], are a remarkable publication record for someone at that stage of a research career.

The last story I want to report is in the appendices themselves: the diagrams. For the most part they appear at the end of the papers, after the references — appendices to appendices! They are drawn by hand, with care and forethought. The typing and drawing remind us how far Donald Knuth’s Tex typesetting language has brought us. But more importantly, it reminds us of *Order*, the journal that Ivan created to be a meeting point for all the ways in which orders organize and

guide the investigations of so many mathematical structures. Each issue has on its cover the drawing of an order that plays a prominent role in one of the articles contained in the issue.

The picture of the younger Ivan that we are publishing is from the Ivan Rival memorial web site [2], where an extensive summary of Ivan's life and achievements are presented by his family. The photo was taken in the restaurant in Schloss Frankenstein located near Darmstadt, during one of the many Allgemeine Algebra conferences organized by AG1. It reminds us here in Manitoba of the Ivan we knew as a graduate student and how fortunate we are to have known him then.

University of Manitoba  
May, 2005

#### REFERENCES

- [1] Dwight Duffus, *Obituary: Ivan Rival*, Order **20** (2003), 173–183.
- [2] *The Ivan Rival Memorial Website*, [www.ivanrival.com](http://www.ivanrival.com).