

**Special issue in honor of Ralf Fröberg
on the occasion of his 65th birthday**

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In June 2009 co-authors, colleagues, students and former students of Ralf Fröberg gathered in Stockholm for the conference *Topics in Algebra* that was held to celebrate Ralf's birthday. The speakers at the conference were: L. Avramov, J. Backelin, V. Barucci, G. Björck, A. Björner, M. Boij, W. Bruns, M. D'Anna, S. Di Rocco, E. Emtander, A. Geramita, C. Gottlieb, J. Herzog, F. Hreinsdóttir, A. Iarrobino, S. Lundqvist, C. Löfwall, V. Micale, M. Passare, J.-E. Roos, E. Sköldberg, J. Snellman, A. Torstensson, N. V. Trung, V. Welker, E. Wulcan and S. Zarzuela.

As the name indicates the conference covered many topics in algebra, from commutative and homological algebra to topics in group theory, algebraic geometry, combinatorics and computational algebra. Many of the participants have written articles for these proceedings that reflect the variety of mathematics presented at the conference.

Among Ralf's mathematical interests are Poincaré series, Koszul algebras, Stanley-Reisner rings, numerical semigroups, analytically irreducible one-dimensional rings and computational algebra. To name only a few of his achievements in these areas:

- His paper in 1975 on the rationality of the Poincaré series of a new class of rings. There it was shown that a quotient ring of a polynomial ring, R/I is Koszul if I is generated by monomials of degree 2. This led to the very important result that if an ideal J has a quadratic Gröbner basis then R/J is Koszul (e.g. using Anick's spectral sequence).

- His work on Koszul algebras and Veronese subrings (joint with J. Backelin) which is a systematic account of Koszul algebras where it is shown that the property is preserved under various constructions such as taking tensor products, Segre products, Veronese subrings and dual rings.