

# Mathematics Colloquium

## Rings and Algebras with Polynomial Identities: From Classical Theory to Structure of $T$ -Ideals, Combinatorial Technique and Invariants

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Friday, April 23, 2004  
4:10 - 5:00 p.m.  
Mathematics and Science Building 38, Room 148

### Abstract

Some aspects of polynomial identities in classical theory of non-commutative rings and algebras will be discussed. The growth of co-dimensional series and Hook-theorem will be considered. Some numerical invariants as well as  $S_n$  and  $GL_n$ -representations and associated co-characters will be introduced. The concept of graded identities and the role of  $K$ -(semi)prime varieties ( $T$ -ideals) and generating algebras will be discussed. Some properties of the simplest  $K$ -prime varieties will be described in more details.