

# Scientific Program

## Minicourses (5 hours):

- ZBIGNIEW JELONEK, Geometry of polynomial mappings
- MAREK SZYJEWSKI, Algebraic  $K$ -theory of schemes

## Main Lectures (1-2 hours):

- ERSAN AKYILDIZ, On the factorization of the Poincaré polynomial
- VASILE BRÎNZĂNESCU, Moduli of stable vector bundles on elliptic surfaces
- SŁAWOMIR CYNK, Modularity of rigid Calabi-Yau manifolds
- VESSELIN DRENSKY, Commutative and noncommutative invariant theory of triangular transformations
- ANTONIO GIAMBRUNO, Growth in PI-algebras
- R.-P. HOLZAPFEL, Weighted surfaces and elliptic modular forms
- OSKAR KĘDZIERSKI, McKay correspondence
- PLAMEN KOSHLUKOV, Polynomial identities in positive characteristic
- ADRIAN LANGER, Moduli spaces of sheaves and Maruyama's conjecture  
Bounds on the cohomology groups of sheaves with applications
- NICOLAE MANOLACHE, Cohen-Macaulay multiple structures
- TOMASZ MASZCZYK, On geometry of the representation site
- A. I. PAPISTAS, Automorphisms of relatively free groups and Lie algebras
- PIOTR PRAGACZ, Subresultants and Schur functions
- TOMASZ SZEMBERG, Asymptotic invariants of linear series

- JENŐ SZIGETI, Determinants and Cayley-Hamilton theorems for matrices over Lie nilpotent rings
- ANATOLY YAKOVLEV, Homology of Hopf algebras over noncommutative rings: restriction and transfer

**Short Communications (35 minutes):**

- MUTSUMI AMASAKI, A proof of the connectedness of space curve invariants for a special case
- ȘERBAN A. BASARAB, A topological group theoretic approach of the co-Galois theory
- CONSTANTIN BELI, Representations of integral quadratic forms by sums of squares
- IVAN CHIPCHAKOV, Abelian extensions, Brauer groups and norm groups of primarily quasilocal fields
- MIHAI CIPU, Dickson polynomials that are permutations
- ADRIAN CONSTANTINESCU, Surgeries on an algebraic variety: grafting a point along a germ of formal curve
- MARCO D'ANNA, The Apéry algorithm for a plane curve singularity
- TATIANA GATEVA-IVANOVA, Set-theoretic solutions of the Yang-Baxter equation
- ALI JABALLAH, Extensions of integral domains with only finitely many intermediate rings
- ALI ULAS OZGUR KISISEL, Gromov-Witten theory of  $\mathbb{P}^1$  and the Krichever correspondence
- OVIDIU PĂȘĂRESCU, On the classification of embedded projective curves
- TSETSKA RASHKOVA, Involution and Bergman type identities
- MAGDA SEBESTEAN, Quotient singularities via a non-commutative subgroup  $G$  of  $SL(n, \mathbb{C})$
- TATYANA TODOROVA, A representation of trigonometric sums via trigonometric integrals
- JOSÉ M. TORNERO, Equimultiple locus of embedded algebroid surfaces and blowing-up