

Contents

Preface

<i>C. Christensen and G.S. Sundaram</i>	1
A Robust, Computationally Efficient Methodology to Set Service Levels for Components in Assemble-to-Order Environments	
<i>H.S. Abhyankar</i>	15
Smale Strategies for Prisoner's Dilemma Type Games	
<i>K. Abhyankar</i>	45
Remembrances of Prof. Shreeram S. Abhyankar and ABC of Singularities	
<i>Shreedhar S. Abhyankar</i>	49
Thoughts on Symplectic Groups and Symplectic Equations	
<i>Shreeram S. Abhyankar and N.F.J. Inglis</i>	63
Field Generators for the Quantum Plane	
<i>J. Alev and F. Dumas</i>	127
Bounding Singular Surfaces of General Type	
<i>V. Alexeev and S. Mori</i>	143
Toric Modifications of Free Toric Varieties	
<i>A. Assi and M. Barile</i>	175
Recent Remarks on Analytical Equivalence	
<i>A. de Azevedo</i>	183
Behavior of the Torsion of the Differential Module of an Algebroid Curve Under Quadratic Transformations	
<i>R.W. Berger</i>	189
Note on Equisingularity in Codimension 1 and Characteristic $p \neq 0$	
<i>I. Bermejo</i>	203

Toric Structure of the Graded Algebra Relative to a Valuation	
<i>A. Campillo and C. Galindo</i>	219
Postulation of Adjoint Ideals and Geometry of Projective Curves	
<i>N. Chiarli, S. Greco and R. Notari</i>	235
Belghitti-Gruson or Semple?	
<i>V. Cossart</i>	259
$2S_4 * Q_8$-extensions	
<i>T. Crespo</i>	263
The Structure of Morphisms	
<i>S.D. Cutkosky</i>	273
Around the Abhyankar-Moh Theorem	
<i>A. van den Essen</i>	283
$PSL_2(11)$ is Admissible for all Number Fields	
<i>W. Feit</i>	295
Adjoints and Max Noether's Fundamentalsatz	
<i>W. Fulton</i>	301
Continuity Loci for Polynomial Systems	
<i>A. Galligo and M. Kwieciński</i>	315
Asymptotically Optimal Towers of Curves over Finite Fields	
<i>E.-U. Gekeler</i>	325
The Hilbert Series of Pfaffian Rings	
<i>S.R. Ghorpade and C. Krattenthaler</i>	337
The Impact of the Infinite Primes on the Riemann Hypothesis for Characteristic p Valued L-series	
<i>D. Goss</i>	357
General Elements of Complete Ideals and Valuations Centered at a Two-dimensional Regular Local Ring	
<i>S. Greco and K. Kiyek</i>	381
Exceptional Polynomials over Arbitrary Fields	
<i>R. Guralnick and J. Saxl</i>	457
Abhyankar's Local Conjecture on Fundamental Groups	
<i>D. Harbater and K.F. Stevenson</i>	473

Questions of Connectedness of the Hilbert Scheme of Curves in \mathbb{P}^3	
<i>R. Hartshorne</i>	487
Catenary Local Rings with Geometrically Normal Formal Fibers	
<i>W. Heinzer, C. Rotthaus and S. Wiegand</i>	497
Diamond Closure	
<i>M. Hochster and J.D. Vélez</i>	511
A Determinantal Formula for the Hilbert Series of One-sided Ladder Determinantal Rings	
<i>C. Krattenthaler and M. Rubey</i>	525
Multiplicities of Singular Points in Schubert Varieties of Grassmannians	
<i>V. Kreiman and V. Lakshmibai</i>	553
Geometric Applications of the Residue Theorem on Algebraic Curves	
<i>E. Kunz</i>	565
On p-Groups in Characteristic p	
<i>A. Ledet</i>	591
Degree Two Generalized Iteration of q-Additive Polynomials	
<i>P.A. Loomis</i>	601
Wild Singularites on the Fermat Curve over \mathbb{Z}	
<i>H. Maeda</i>	609
Algebraic Curves over \mathbb{F}_3 with Many Rational Points	
<i>I. Luengo and B. López</i>	619
Gröbner Bases of Symmetric Quotients and Applications	
<i>R.I. Michler</i>	627
Abstract Embeddings of Concrete Matrix-Groups	
<i>S.B. Mulay</i>	639
Some Generalization of Melville Theorem	
<i>K.N. Ponomarev</i>	667
Multiple Planes Ramified over One-place Curves	
<i>P. Russell</i>	673
An Application of Generalized Newton Puiseux Expansions	
<i>A. Sathaye</i>	687

Elliptic Subfields and Automorphisms of Genus 2 Function Fields	
<i>T. Shaska and H. Völklein</i>	703
Some Ideas in the Classification of the Finite Simple Groups	
<i>G. Stroth</i>	725
Abhyankar's Nice Equations	
<i>G.S. Sundaram</i>	733
The Scientific WorkPlace Computational Interface	
<i>Steven L. Swanson</i>	745
Diophantine Approximation in Finite Characteristic	
<i>D.S. Thakur</i>	757
Puiseux Expansions in Nonzero Characteristic	
<i>S. Vaidya</i>	767
Arithmetical-Geometrical Galois Representations and the Inverse Galois Problem	
<i>N. Vila</i>	775
Polynomials and Power Series	
<i>Shreeram S. Abhyankar</i>	783
Author Index	785