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Nota di contenuto	""Contents""; ""Introduction""; ""List of Participants""; ""Hilbert's tenth problem: What was done and what is to be done""; ""Undecidability of existential theories of rings and fields: A survey""; ""1. Introduction""; ""2. The existential theory of rational function fields""; ""3. The existential theory of algebraic function fields""; ""4. A geometric analogue of Hilbert's Tenth Problem""; ""5. Decision problems concerning rings of analytic functions: introduction""; ""6. First-order theories of rings of analytic functions"" ""7. Existential decidability and the Approximation Property for rings of analytic functions""; ""8. Existential undecidability for rings of analytic functions""; ""9. Polynomial rings and p-adic entire functions""; ""10. Existential theories of fields of meromorphic functions""; ""11. Variations: Languages with predicates for symmetric functions""; ""Appendix A. Elliptic curves: Basic Definitions""; ""Appendix B. Elliptic curves over function fields""; ""Appendix C. Pell equations""; ""References""; ""Hilbert's tenth problem over number fields, a survey"";

""Defining constant polynomials""  
""Decidability and local-global principles""""Applications of local-global principles to arithmetic and geometry""; ""Regularly T-closed fields"";  
""Skolem density problems over large Galois extensions of global fields""; ""An effort to prove that the existential theory of Q is undecidable""; ""Topology of diophantine sets: Remarks on Mazur's conjectures""; ""Diagonal quadratic forms and Hilbert's tenth problem"";  
""Algebraic geometry over four rings and the frontier to tractability"";  
""1. Introduction""; ""2. Computing Complex Dimension Faster""  
""3. Polytope Volumes and Counting Pieces of Semi-Algebraic Sets""""4. The Generalized Riemann Hypothesis and Detecting Rational Points"";  
""5. Effective Siegel Versus Detecting Integral Points on Surfaces""; ""6. Proofs of Our Main Technical Results""; ""7. Acknowledgements"";  
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""Some model theory of compact complex spaces""; ""Double coset decompositions for algebraic groups over  $K[t]$ ""; ""Zero estimates for polynomials in 3 and 4 variables using orbits and stabilisers""

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