

LIST OF PUBLICATIONS

of Thanases (or Athanasios) C. Pheidas
as of 2019

Research papers-published and accepted

2014 (with H. Pasten and X. Vidaux) *Uniform existential interpretation of Arithmetic in rings of functions of positive characteristic*, *Inventiones Mathematicae*, **196-2** (2014), 453-484.

2010.2 (with X. Vidaux) *The analogue of Buchi's problem for rational functions; Errata*, *Journal of the London Mathematical Society*, **82** (2010), 273-278.

2010.1 (with H. Pasten and X. Vidaux) *A survey on Büchi's problem: new presentations and open problems*, *Zapiski POMI Zapiski POMI* **377** (2010), 111-140

(and *Journal of Math. Sciences*, Springer)

2008.2 (with X. Vidaux) *The analogue of Buchi's problem for cubes in rings of polynomials* *Pacific Journal of Mathematics*, **238-2** (2008), 349-366.

2008.1 (With K. Zahidi) *Analogues of Hilbert's tenth problem*, *Model theory with Applications to Algebra and Analysis Vol. 2* (Eds. Zoe Chatzidakis, Dugald Macpherson, Anand Pillay, Alex Wilkie), *London Math Soc. Lecture Note Series* Nr 250, Cambridge Univ Press, 2008.

Subsets of it have been presented at

(a) American Institute of Mathematics (ARCC), workshop on Extensions of Hilbert's tenth problem:

<http://www.aimath.org/ARCC/workshops/hilberts10th.html>

(b) The Newton Institute, workshop on An Introduction to recent applications of Model Theory,

<http://www.newton.cam.ac.uk/programmes/MAA/maaw01.html>

[a printed version as well as a recording of the talk can be found at]

<http://www.newton.cam.ac.uk/webseminars/pg+ws/2005/maa/maaw01/0406/pheidas/>

2006 (with X. Vidaux) *The analogue of Buchi's problem for rational functions*, *Journal of London Mathematical Society*, (2) **74** (2006), 545-565.

2005.2 (with X. Vidaux) *Extensions of Buchi's problem: Questions of decidability for addition and k -th powers*, *Fundamenta Mathematicae*, 185 (2005), 171-194.

2005.1 (With G. Cornelissen and K. Zahidi) *Division-ample sets and the Diophantine problem for rings of integers*, *Journal de Theorie des Nombres*

de Bordeaux, 17 (2005), 727-735.

2004.3 (with K. Zahidi) *Elimination theory for addition and the Frobenius map in polynomial rings*, the Journal of Symbolic Logic, 69-4 (2004), 1006-1026.

2004.2 *Diophantine undecidability for addition and divisibility in polynomial rings*, Fundamenta Mathematicae, 182 (2004), 205-220.

2004.1 *Endomorphisms of elliptic curves and undecidability in function fields of positive characteristic*, Journal of Algebra 273 (2004), no. 1, 395-411.

2000.2 *An effort to prove that the existential theory of Q is undecidable*, Contemporary Mathematics 270 (2000), 237-252.

2000.1 (with K. Zahidi) *Undecidability of existential theories of rings and fields: A survey*, Contemporary Mathematics, 270 (2000), 49-106.

1999 (With K. Zahidi) *Undecidable existential theories of polynomial rings and function fields*, Communications in Algebra, 27-10 (1999), 4993-5010.

1995.2 *The diophantine theory of a ring of analytic functions*, Journal für die reine und angewandte Mathematik, 463 (1995), 153-167.

1995.1 (With L. Lipshitz) *An analogue of Hilbert's tenth problem for p -adic entire functions*, Journal of Symbolic Logic, 60-4 (1995), 1301-1309.

1994 *Extensions of Hilbert's tenth problem*, Journal of Symbolic Logic, 59-2 (1994), 372-397.

1991 *Hilbert's tenth problem for rational function fields over finite fields*, Inventiones Mathematicae, 103 (1991), 1-8.

1988 *Hilbert's tenth problem for a class of rings of algebraic integers*, Proceedings of the American Mathematical Society, 104-2 (1988), 611-620.

1987.2 *An undecidability result for power series rings of positive characteristic II*, Proceedings of the American Mathematical Society, 100-3 (1987), 526-530.

1987.1 *An undecidability result for power series rings of positive characteristic*, Proceedings of the American Mathematical Society, 99-2 (1987), 364-366.

1985 *The diophantine problem for addition and divisibility in polynomial rings*, Thesis (Purdue University, 1985) and accepted for publication in Transactions of the American Mathematical Society.

Research papers - in Conference Proceedings and in preprint form

(with X. Vidaux) *Hilbert's tenth problem for complex meromorphic func-*

tions in several variables with a place, arXiv:1711.09412 [math.LO] and submitted for publication.

(with Dimitra Chompitaki) *Undecidability of the existential theory of the ring of exponential sums*, contributed paper at *Logic Colloquium 2016*, University of Leeds, UK, August 2016 and Conference *Definability and Decidability Problems in Number Theory* Mathematisches Forschungsinstitut Oberwolfach, Germany, November 2016.

(with X. Vidaux) *Hilberts tenth problem for complex meromorphic functions in several variables*, Conference *Definability and Decidability Problems in Number Theory* Mathematisches Forschungsinstitut Oberwolfach, Germany, November 2016.

On the number of multiplications required for the evaluation of a polynomial, Technical Report No 28, University of Crete.

Other scientific work:

(co-)Editor of the translation into Greek of the book *Elements of Discrete Mathematics*, C.L. Liu (published by the University Publishing Company of Crete).

(co-)Editor of the translation into Greek of the book *A Mathematical Introduction to Logic*, H.B. Enderton (published by the University Publishing Company of Crete).

Citations

As of May 2016, according to the search-machine ‘Google Scholar’, the number of citations was 485.

Most cited articles: [2014], [2005.2], [2005.1], [2000.1], [1995.1], [1991], [1988].