

C.V.

GENERALS

- Name: George Costakis.
- Born in: Athens 15/04/1972.
- Military service: Greek air force 2002-2003.
- Marital status: Married with one child.

EDUCATION

- 1994: BSc. in Math. Dep. of Math. Univ. of Athens, Greece.
- 2000: MSc. in Math. Dep. of Math. Univ. of Athens, Greece.
- 2000: PhD. in Math. Dep. of Math. Univ. of Athens, Greece.

ACADEMIC POSITIONS

- 2000-2002: Visiting Assistant Professor, Depart. of Math., Univ. of Maryland, College Park, U.S.A.
- 2003-2004: Research Associate, School of Math., Univ. of Edinburgh, United Kingdom.
- 2004-2007: Visiting Assistant Professor, Depart. of Math. Univ. of Crete.
- 2007-2014: Assistant Professor, Depart. of Math. Univ. of Crete.
- 2014- present Associate Professor, Depart. of Math. and Applied Math. Univ. of Crete.

RESEARCH INTERESTS

- Operator Theory, Functional Analysis and Dynamical Systems: Hypercyclicity, i.e. dynamics of linear operators.
- Complex and Harmonic Analysis with applications to Approximation and Universality.
- Integral Equations and P.D.E.'s: Scattering Theory.

TEACHING EXPERIENCE

Undergraduate

- University of Maryland, College Park: Ordinary Differential Equations, Calculus.
- University of Crete: Infinitesimal Calculus I, II, III, Analysis I, II, Ordinary Differential Equations, Probability Theory, Analytic Geometry, Classical Analysis, Laboratory in Analysis, Functional Analysis, Real Analysis, Methods in Applied Mathematics, Complex Analysis, Analysis in several variables (little Spivak), Linear and non-linear programming.

Graduate

- University of Crete: Measure Theory, Ordinary Differential Equations, Functional Analysis, Complex Analysis.

STUDENTS(in Crete, Dep. of Math.)

Undergraduate theses

- K. Tsatsas, Nowhere differentiable, continuous functions 2007.
- N. Aggouridis, Sarkovskii's theorem 2008.
- L. Anagnostopoulos, The invariant subspace problem 2009.
- T. Karangelis, Beurling's theorem 2010.
- K. Alexandridi, Diophantine inequalities and Apéry's constant, 2017.

Master's theses

- P. Mavroudis, Dynamics of Linear Operators 2008.
- A. Loutraris, Quantitative recurrence theorems 2012.
- Basford, Universal Taylor series 2015.

Post-doc supervision

- Scientific coordinator in the research project with title: "Common hypercyclic vectors and universal functions" and number: PE1 4126, within the framework of the Action "Educational and Lifelong Learning". Co-financed by the European Social Fund (ESF) and the Greek State. Post-doctoral Researcher: Nikos Tsirivas. Duration of the project 17/01/2012-30/06/2015.

TALKS-CONFERENCES

- 1999 (April) 7th Panhellenic Conference in Analysis, Nicosia, Cyprus.
- 1999 (October) 4th International Workshop on Mathematical Methods in Scattering Theory and Biomedical Technology Perdika Thesprotia, Greece.
- 2000 (Winter) Dep. of Math. University of Athens
- 2000 (Spring) School of Math. Univ. of Edinburgh, United Kingdom.
- 2000 (Spring) Dep. of Math. Univ. of Crete.
- 2000 (June) Conference in Analysis, Dep. of Math. Univ. of Crete.
- 2000 (Fall) Dep. of Math. Univ. of Maryland, College Park, U.S.A.
- 2001 (Spring) Dep. of Math. Michigan State University, U.S.A.
- 2002 (Fall) Dep. of Math. Aristotle Univ. of Thessaloniki, Greece.
- 2003 (June) International Conference on Complex Analysis, TDF 2003-Metz, Journées d'analyse complexe, University of Metz, France.
- 2003 (June) "Young researchers days of the HARP network", Université D'Orleans, Dep. of Math., France .
- 2003 (November) School of Math. Univ. of Edinburgh, United Kingdom.
- 2003 (November) Dep. of Theoretical Math. Queen Univ., Belfast, United Kingdom.
- 2004 (April) BMC (British Mathematical Collocium), Belfast, United Kingdom.
- 2004 (July) Dep. of Math. Univ. of Crete.
- 2004 (September) International Conference in Analysis, Univ. of Granada, Spain.
- 2004 (November) "Young researchers days of the HARP network", Edinburgh, United Kingdom.
- 2005 (June) International Conference in Analysis, Univ. of Mainz, Germany.
- 2005 (December) Dep. of Math. Univ. of Bielefeld, Germany.
- 2006 (March) Dep. of Math. Univ. of Cyprus.
- 2006 (May) International Conference on Complex and Harmonic Analysis, Thessaloniki, Greece.
- 2006 (May) International Conference on Complex and Fourier Analysis, Univ. of Cyprus, Cyprus.
- 2006 (August) Mini workshop: "Hypercyclity and Linear Chaos" in Mathematisches Forschungsinstitut Oberwolfach, Germany.
- 2006 (September) Dep. of Math. Univ. of Athens, Greece.
- 2007 (March) Dep. of Math. Univ. of Bielefeld, Germany.
- 2007 (June) Conference on complex analysis, "Tag der Functionentheorie" University of Trier, Germany.

- 2007 (July) 1st French-Spanish conference in Math., Zaragoza, Spain.
- 2008 (February) Mini workshop: "Complex Approximation and Universality" Mathematisches Forschungsinstitut Oberwolfach, Germany.
- 2008 (March) Dep. of Math. Univ. of Trier, Germany.
- 2008 (April) Dep. of Math. Polyt. Univ. of Valencia, Spain.
- 2008 (May) 12th Panhellenic conference in Mathematical Analysis, Dep. of Math. Univ. of Athens, Athens, Greece.
- 2008 (December) Dep. of Math. Univ. of Bielefeld, Germany.
- 2009 (April) Dep. of Math. Stokholm Univ. Sweeden.
- 2009 (June) Conference in Hypercyclicity, Dep. of Math. Polyt. Univ. of Valencia, Spain.
- 2010 (February) Dep. of Math. Instit. Super. Tecn. Lisbon, Portugal.
- 2011 (Spring) Dep. of Math. Univ. of Trier, Germany.
- 2011 (Spring) School of Math. Sciences, Univ. College Dublin, Dublin, Ireland.
- 2011(June) Dep. of Math. Polyt. Univ. of Valencia, Spain.
- 2011 (June) Dep. of Math. Univ. of Valencia, Spain.
- 2011 (July) Complex and Harmonic Analysis 2011, a biannual Greek-Spanish mathematical congress, Univ. of Málaga, Spain.
- 2014 (July) IWOTA 2014, VU University in Amsterdam.

REFeree for several journals (a sample):

- Acta Math. Vietnamica
- Ann. Polon. Math.
- Boundary Value Problems
- Chaos Solitons and Fractals
- Collect. Math.
- Complex Var. Ellip. Equ.
- Concrete Operators
- Integral Equations Operator Theory
- ISRN Mathematical Analysis
- J. Approx. Theory
- J. Funct. Anal.
- J. Lond. Math. Soc.
- J. Math. Anal. Appl.
- Linear Multilinear Algebra
- Oper. Matrices
- Proc. Amer. Math. Soc.
- RACSAM Rev. de la Real Acad. De Ciencias Exactas Fis. y Nat. Serie A Math.
- Rev. Mat. Complut.
- SIAM J. Math. Anal.
- Studia Math.

ORGANIZED MEETINGS-CONFERENCES

"Universal Functions and Hypercyclic Operators 2011" , Dep. of Math. Heraklion, Crete.

PUBLICATIONS

1. Some remarks on universal functions and Taylor series, *Math. Proc. Camb. Phil. Soc.* 128 (2000), 157-175.

2. On a conjecture of D. Herrero concerning hypercyclic operators, *C. R. Acad. Sci. Paris Ser. I Math.* 330 (2000), 179-182.
3. On the range of universal functions, *Bull. Lond. Math. Soc.* 32, (2000), 458-464 (with A. Melas).
4. On some properties of Beltrami fields in chiral media, *Rep. Math. Phys.* 45 (2000), 257-271 (with C. Athanasiadis and I. Stratis).
5. Electromagnetic scattering by a homogeneous chiral obstacle in a chiral environment, *IMA J. Appl. Math.* 64 (2000), 245-258 (with C. Athanasiadis and I. Stratis).
6. Low frequency electromagnetic scattering from a nonchiral object in a chiral environment, in *Electromagnetic Scattering Theory and Biomedical Technology: Modelling and Applications*, G. Dassios, D. Fotiadis, C. Massalas and K. Kiriaki, eds., World Scientific, New Jersey (2000), 38-49 (with C. Athanasiadis and I. Stratis).
7. Electromagnetic scattering by a perfectly conducting obstacle in a homogeneous chiral environment: solvability and low frequency theory, *Math. Meth. Appl. Sci.* 25 (2002), 927-944 (with C. Athanasiadis and I. Stratis).
8. Hypercyclic semigroups and somewhere dense orbits, *C. R. Math. Acad. Sci. Paris* 335 (2002), 895-898 (joint with A. Peris).
9. Topologically mixing hypercyclic operators, *Proc. Amer. Math. Soc.* 132 (2004), 385-389 (with M. Sambarino).
10. Genericity of wild holomorphic functions and common hypercyclic vectors, *Adv. Math.* 182 (2004), 278-306 (with M. Sambarino).
11. Transmission problems in contrasting chiral media, *Rep. Math. Phys.* 53 (2004), 143-156 (with C. Athanasiadis and I. Stratis).
12. A generic result concerning univalent universal functions, *Arch. Math.* 82 (2004), 344-351 (with V. Vlachou).
13. Identical approximative sequence for various notions of universality, *J. Approx. Theory* 132 (2005), 15-24 (with V. Vlachou).
14. Universal Taylor series on doubly connected domains with respect to every center, *J. Approx. Theory* 134 (2005), 1-10.
15. On the radial behavior of universal Taylor series, *Monatsh. Math.* 145 (2005), 11-17.
16. Zeros and interpolation by universal Taylor series on simply connected domains, *Math. Proc. Camb. Phil. Soc.* 139 (2005), 149-159.
17. Universal Laurent Series, *Proc. Edinb. Math. Soc.* 48 (2005), 571-583 (with V. Nestoridis and I. Papadoperakis).
18. Boundary behavior of universal Taylor series and their derivatives, *Constr. Approx.* 24 (2006), 1-15 (with D. Armitage).
19. Somewhere dense Cesàro orbits and rotations of Cesàro hypercyclic operators, *Studia Math.* 175 (2006), 249-269 (with D. Hadjiloucas).
20. Universal Taylor series on non-simply connected domains, *Analysis(Munich)* 26 (2006), 347-363 (with V. Vlachou).
21. Universal Taylor series on open subsets of \mathbb{R}^n , *Analysis(Munich)* 26 (2006), 401-409 (with M. Marias and V. Nestoridis).
22. Extensions of a theorem of Bourdon and Feldman on somewhere dense orbits, *Oberwolfach Rep.* 3 (2006), 2266-2267.
23. Smooth univalent universal functions, *Math. Proc. R. Ir. Acad.* 107 (2007), 101-114 (with V. Nestoridis and V. Vlachou).

24. Approximation by translates of entire functions, *Complex and Harmonic Analysis*, 213-219, DEStech Publ., Inc., Lancaster, PA, 2007.
25. Topologically Transitive Skew-Products of Backward Shift Operators and Hypercyclicity, *Proc. Amer. Math. Soc.* 136 (2008), 937-946 (with D. Hadjiloucas).
26. Common hypercyclic entire functions for multiples of differential operators, *Colloq. Math.* 111 (2008) 199-203 (with P. Mavroudis).
27. J -class weighted shifts on the space of bounded sequences of complex numbers, *Integral Equations Operator Theory* 62 (2008), 149-158 (with A. Manoussos).
28. Which maps preserve universal functions? *Oberwolfach Rep.* 5 (2008), 328- 331.
29. Dynamics of tuples of matrices, *Proc. Amer. Math. Soc.* 137 (2009), 1025- 1034 (with D. Hadjiloucas and A. Manoussos).
30. The hypercyclicity criterion and hypercyclic sequences of multiples of operators, *J. Operator theory* 62 (2009), 341-355 (with D. Hadjiloucas).
31. On the minimal number of matrices which form a locally hypercyclic, non- hypercyclic tuple, *J. Math. Anal. Appl.* 365 (2010), 229-237 (with D. Hadjiloucas and A. Manoussos).
32. Topologically Transitive Skew-Products of Operators, *Ergodic Theory and Dynamical Systems* 30 (2010), 33-49 (with F. Bayart and D. Hadjiloucas).
33. Common Cesàro hypercyclic vectors, *Studia Math.* 201 (2010), 203-226.
34. J -class operators and hypercyclicity, *J. Operator Theory* 67 (2012), 101-119 (with A. Manoussos).
35. Interpolation by universal, hypercyclic functions, *J. Approx. Theory* 164 (2012), 625-636 (with V. Vlachou).
36. Szemerédi's theorem, frequent hypercyclicity and multiple recurrence, *Math. Scand.* 110 (2012), 251-272 (with I. Parissis).
37. On the growth of zero-free MacLane-universal entire functions, *Indag. Math.* 23 (2012), 311-317 (with L. Bernal-Gonzalez and A. Bonilla).
38. Dynamics of tuples of matrices in Jordan form, *Oper. Matrices* 1 (2013), 131-157 (with I. Parissis).
39. Cyclic operators with finite support, *Israel J. Math.* 193 (2013), 131-167 (with F. Bayart).
40. Recurrent Linear Operators, *Complex Analysis and Operator Theory* 8 (2014), 1601-1643 (with A. Manoussos and I. Parissis).
41. Doubly universal Taylor series, *J. Approx. Theory* 180 (2014), 21-31 (with N. Tsirivas).
42. Hypercyclic operators and rotated orbits with polynomial phases, *J. London Math. Soc.* 89 (2014), 663-679 (with F. Bayart).
43. Non-existence of common hypercyclic entire functions for certain families of translation operators, *Comput. Methods Funct. Theory* 15 (2015), 393-401 (with N. Tsirivas and V. Vlachou).
44. Two problems on power-regular operators, *Houston J. Math.* 42 (2016), 569-575.
45. Multiplicative structures of hypercyclic functions for convolution operators, *J. Operator Theory* 80 (2018), 213-224 (with L. Bernal-Gonzalez, J. A. Conejero and J. B. Seoane-Sepulveda).
46. Generic behaviour of classes of Taylor series outside the unit disc, *Constructive Approximation.* 49 (2019), 508-524 (with A. Jung and J. Müller).
47. Frequently Cesàro hypercyclic operators are hypercyclic, preprint (with I. Ruzsa).