

# CURRICULUM VITAE

Surname: **KATAVOLOS**

First Name: **Aristides**

Department of Mathematics,  
National and Kapodistrian University of Athens (NKUA),  
157 84 Athens, Greece.

Phone: (\*30210) 7276316, 7276368

FAX: (\*30210) 7276378

email: [akatavol@math.uoa.gr](mailto:akatavol@math.uoa.gr)

URL: <http://users.uoa.gr/~akatavol>

Born: 30th April 1950, Athens, Greece.

Nationality: Greek.

## 1. Education

**1972** B.Sc. in Physics (2nd class Honours, Upper Division): University of London (Imperial College).

**1974** M.Sc. in Mathematics (with Distinction): University of London (Bedford College).

**1977** Ph.D. in Mathematics: University of London (Bedford College). Supervisor: Professor R.F. Streater.

## 2. Academic Career

**1974 - 77**: Demonstrator, Bedford College and University College, London.

**1978 - 80**: 'Special Scientist' (temporary position) Department of Mathematics, University of Crete.

**since 1980**: Department of Mathematics, NKUA: Senior Assistant (1980-82), Lecturer (1982 - 85), Assistant Professor (1985 - 93), Associate Professor (1993-2000).

**2000 - August 2017**: Professor, Department of Mathematics, NKUA.

### Visiting Positions:

**Sep. 87 - Apr. 88**: Dalhousie University, Canada.

**Apr. 88 - Jun. 88**: King's College, University of London, UK.

**Sept. 93 - Jan. 94**: University of Lancaster, UK.

### 3. Specialisation

**Main field:** Non-selfadjoint Operator Algebras.

**Other fields:** Operator Theory, Banach Algebras, Abstract Harmonic Analysis, Functional Analysis.

**Current research interests:** Semi-crossed products and Dynamical Systems, Masa bimodules and Spectral synthesis, Quantized Functional Analysis.

### 4. Other Activities

Director of the NATO Advanced Study Institute and Aegean Conference on Operator Algebras and Applications, held in Samos, Greece, August 19-28, 1996.

Coordinator for the Erasmus exchange program, 1989 -90.

Participation in the Erasmus exchange program committee, 1991-92, 1992-93.

Coordinator for the Socrates - Erasmus exchange program, 2009-11.

Coordinator for the joint NKUA – British Council research program, 1999-2001.

Coordinator for the Greece – Russia Science and Technology Cooperation program, 1999-2001.

Coordinator for a Herakleitus research program (NKUA), 2002-05.

Participation in the Pythagoras research program (NKUA), 2005-08.

Coordinator for a Herakleitus II research program (NKUA), 2010-12.

### 5. Research Students

*E. G. Katsoulis*, PhD 1989

Currently Professor, East Carolina University.

*M. Papadakis*, PhD 1993

Currently Professor, University of Houston, USA.

*I. G. Todorov*, PhD 1999

Currently Professor and Director of the Pure Mathematics Research Centre, Queen's University Belfast, Northern Ireland, UK.

*G. K. Eleftherakis*, PhD 2007

Currently Lecturer, University of Patras, Greece.

*E. Kakariadis*, PhD 2011

Currently Lecturer in Pure Mathematics, Newcastle University, U.K.

*D. Andreou*, In progress.

I have supervised eight MSc theses.

## 6. International Conferences

I have participated in more than 35 international conferences.

### Plenary talks

- “Harmonic Analysis and Operator Algebra Theory”, one-hour invited address, 15th Panhellenic Analysis Conference, University of Crete, 2016.
- “Masa Bimodules of Toeplitz type”, one hour plenary talk, ‘ International Conference on Operator Algebras, Nanjing University of Science and Technology, China, June 20-23, 2013.
- “Morita type equivalences for dual Operator Algebra (according to G. Eleftherakis)”, one hour plenary talk, Operator Algebra Workshop, Queen’s University Belfast, 2006.
- “Reflexivity, Suppots and Spectral Synthesis”, two ninety minutes plenary talks, NATO Advanced Study Institute on “Operator Algebras and Applications”, Samos, 1996.

## 7. Publications

### (A) Books

(1) *Introduction to the Theory of Differential Equations* (with P. Strantzalos), Kardamitsa Publishers, Athens 1987 (in Greek)

(2) *Operator Algebras and Applications* (editor) Proceedings of the NATO ASI, Kluwer Academic Publishers, Dordrecht, 1997.

(3) *Introduction to Operator Theory*, Symmetria Publishers, Athens 2008 (in Greek).

**Book Chapter** *von Neumann algebras and unbounded operators* (in Greek), in: *Operator Algebras and Quantum Mechanics*, M. Anoussis, S. Kotsakis, N. Hatzisavvas (editors), Proceedings of the third Summer School in Analysis, Geometry and Mathematican Physics, University of the Aegean 1995, Ziti Publishers, Thessaloniki 1997.

### (B) Research Articles (number of citations in brackets)

1. M. Anoussis, A. Katavolos, and I. G. Todorov. *Ideals of the Fourier algebra, supports and harmonic operators*. Math. Proc. Cambridge Philos. Soc., 161(2):223–235, 2016 [1].

2. Aristides Katavolos. *Operator algebras: an introduction*. Serdica Math. J., 41(1):49–82, 2015.
3. A. Katavolos. *Some operator algebras from semigroups*. In Algebraic methods in functional analysis, volume 233 of Oper. Theory Adv. Appl., pages 75–84. Birkhäuser/Springer, Basel, 2014.
4. Anoussis, M.; Katavolos, A.; Todorov, I.G. *Ideals of  $A(G)$  and bimodules over maximal abelian selfadjoint algebras*, J. Funct. Anal. 266 (2014), no. 11, 6473–6500 [3].
5. Anoussis, M.; Katavolos, A.; Todorov, I.G. *Operator algebras from the discrete Heisenberg semigroup*, Proc. Edinburgh Math. Soc. 55 (2012), 1–22 [4].
6. Anoussis, M.; Katavolos, A.; Todorov, I.G. *Angles in  $C^*$ -algebras*, Houston J. Math. V. 37 (2011), No. 2, 501–517 [1].
7. Katavolos, A.; Paulsen, V.I. *On the ranges of bimodule projections*, Canad. Math. Bull 48 (2005), no. 1, 97–111, MR2118767 (2005j:46037) [27].
8. Katavolos, A.; Todorov, I.G. *Normalizers of operator algebras and reflexivity*, Proc. London Math. Soc. (3) 86 (2003), 463–484, MR1971159 (2005g:47137) [13].
9. Katavolos, A.; Power, S.C. Translation and dilation invariant subspaces of  $L^2(\mathbb{R})$ , J. Reine Angew. Math. 552 (2002), 101–129. 47Axx (47Lxx) [12].
10. Donsig, A.P.; Katavolos, A.; Manoussos, A. The Jacobson radical of an analytic crossed product, J. Funct. Anal. 187 (2001), 129–145 [24].
11. Katavolos, A.; Lambrou, M. S.; Longstaff, W. E., Pentagon subspace lattices on Banach spaces, J. Operator Theory 46 (2001), 355–380, MR 1870412 (2003a:47137). [18].
12. Erdos, J.A., Katavolos, A., Shulman, V.S. Rank one subspaces of bimodules over maximal abelian selfadjoint algebras, J. Funct. Anal., 157 (1998), 554–587, MR 99f:47054 [28].
13. Katavolos, A.; Stamatopoulos, C. Commutators of quasinilpotents and invariant subspaces, Studia Math. 128 (1998) no. 2, 159–169, MR 99b:46070 [10].
14. Katavolos, A. Reflexivity, supports and spectral synthesis. *Operator algebras and applications (Samos, 1996)*, 225–243, NATO Adv. Sci. Inst. Ser. C Math. Phys. Sci., 495, Kluwer Acad. Publ., Dordrecht, 1997, MR 98e:47067.
15. Katavolos, A.; Power, S. C. The Fourier binest algebra. Math. Proc. Cambridge Philos. Soc. 122 (1997) no. 3, 525–539, MR 98d:47097 [14].
16. Barnes, B. A.; Katavolos, A. Properties of quasinilpotents in some operator algebras. Proc. Roy. Irish Acad. Sect. A 93 (1993) no. 2, 155–170, MR 96j:47042 [2].

17. Anoussis, M.; Katavolos, A. Unitary actions on nests and the Weyl relations. *Bull. Lon. Math. Soc.* 27 (1995) no. 3, 265–272, MR 96b:47049 [4].
18. Anoussis, M.; Katavolos, A. Isometries of  $C_p$ -spaces in nest algebras. *J. Lon. Math. Soc.* (2) 51 (1995) no. 1, 175–188, MR 95k:47063 [9].
19. Anoussis, M.; Katavolos, A.; Lambrou, M. On the reflexive algebra with two invariant subspaces. *J. Operator Theory* 30 (1993) no. 2, 267–299, MR 95i:47082 [10].
20. Katavolos, A.; Lambrou, M. S.; Papadakis, M. On some algebras diagonalized by  $M$ -bases of  $\ell^2$ . *Integral Equations Operator Theory* 17 (1993) no. 1, 68–94, MR 95c:47048 [13].
21. Katavolos, A.; Lambrou, M. S.; Longstaff, W. E. The decomposability of operators relative to two subspaces. *Studia Math.* 105 (1993) no. 1, 25–36, MR 94h:47082 [7].
22. Katavolos, A.; Papanastassiou, N. Order convergence in operator algebras. *Math. Balkanica (N.S.)* 5 (1991) no. 3, 245–249, MR 92m:47081.
23. Katavolos, A. Decomposability of operators relative to two subspaces. *Selfadjoint and nonselfadjoint operator algebras and operator theory (Fort Worth, TX, 1990)*, 77–81, *Contemp. Math.*, 120, Amer. Math. Soc., Providence, RI, 1991, MR 92f:47045.
24. Katavolos, A.; Katsoulis, E. Semisimplicity in operator algebras and subspace lattices. *J. Lon. Math. Soc.* (2) 42 (1990) no. 2, 365–372, MR 92b:47066 [11].
25. Katavolos, A.; Radjavi, H. Simultaneous triangularization of operators on a Banach space. *J. Lon. Math. Soc.* (2) 41 (1990) no. 3, 547–554, MR 91i:47058 [18].
26. Katavolos, A. Noncommutative  $L^p$  spaces. II. *Canad. J. Math.* 34 (1982) no. 5, 1208–1214, MR 84b:46077 [11].
27. Katavolos, A. Are noncommutative  $L^p$  spaces really noncommutative? *Canad. J. Math.* 33 (1981) no. 6, 1319–1327, MR 83a:46074 [12].
28. Katavolos, A.; Koch, I. Extension of Tomita-Takesaki theory to the unbounded algebra of the canonical commutation relations. *Rep. Math. Phys.* 16 (1979) no. 3, 335–352, MR 81g:81039 [10].
29. Katavolos, A. Isometric mappings of non-commutative  $L^p$  spaces. *Canad. J. Math.* 28 (1976) no. 6, 1180–1186, MR 54# 5847 [14].

## 8. Selected citations

J. Alaminos, M. Brešar, J. Extremera, Š. Špenko, and A. R. Villena. Derivations preserving quasinilpotent elements. *Bull. Lond. Math. Soc.*, 46(2):379–384, 2014. (cites [13]).

K.R. Davidson, E.G. Katsoulis, Operator algebras for multivariable dynamics, *Mem. Amer. Math. Soc.* 209, no. 982, (2011). (cites [10]).

N. K. Nikolski, Featured review of *Translation and dilation invariant subspaces of  $L^2(\mathbb{R})$*  [9], MR1940434 (2005a:47009).

Blecher, D. P.; Le Merdy, Ch., *Operator algebras and their modules—an operator space approach*. Oxford University Press, Oxford, 2004 (cites [4]).

Shulman V; Turowska L , *Operator synthesis. I. Synthetic sets, bilattices and tensor algebras*. *J. Funct. Anal.* 209 (2) 2004 (cites [4,8]).

Radjavi, H.; Rosenthal P. *Simultaneous Triangularization*. Springer (2000) (cites [9,12]).

Davidson, K.R. *Normalizers of finite multiplicity nests*. *Proc. Edinburgh Math. Soc.* 39 (1996) (cites [13]).

Hudson, T.D. *Radicals and prime ideals in limit subalgebras of AF algebras*. *Quart. J. Math. Oxford Ser. (2)* 48 (1997) (cites [20]).