CURRICULUM VITAE - Dan Grigore Timotin

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Adresa : Institutul de Matematică *Simion Stoilow* al Academiei Române, Calea Griviţei 21, Bucureşti.

Studii

1986 Doctorat la Universitatea din Bucureşti. Teza susţinută sub conducerea lui Dan Voiculescu.

1971–1976 Universitatea Bucureşti, Facultatea de Matematică, încheiată cu diplomă de specializare (analiză).

Poziţii ocupate

1990– Cercetător Ştiinţific, Institutul de Matematică *Simion Stoilow* al Academiei Române.

1979–1990 Cercetător Ştiinţific, Departamentul de Matematică al INCREST.

1976–1979 Analist programator, Centrul de Calcul al IPGGH.

Domenii de cercetare

- Analiză funcţională.
- Teoria operatorilor în spaţii Hilbert.
- Spaţii de funcţii.

Vizite ştiinţifice în străinătate

2015 Cercetător invitat la Universitatea din Lyon (o lună).

2013 Cercetător invitat la Universitatea din Lyon (trei luni).

2007, 2012, 2017 Profesor invitat la Indiana University, Bloomington (câte cinci luni).

2009, 2010, 2011 Profesor invitat la GC University, Lahore, Pakistan (câte o lună).

2004, 2005, 2006, 2009, 2010, 2011 Profesor invitat la Universitatea din Lille (trei luni în fiecare an).

2004, 2010, 2015 Profesor invitat la Universitatea din Bordeaux (câte o lună).

2008, 2009 Profesor invitat la Universitatea din Lyon, (câte şase luni).

2004, 2005, 2006 Cercetător invitat la Georgia State University,grant de cooperare NSF (câte o lună).

2003 Profesor invitat la Universitatea din Lyon (o lună).

2002–2003 Profesor invitat la Universitatea din Besançon, (şase luni).

2001 Cercetător invitat la Georgia State University, grant în programul COBASE (două luni).

2000, 2001, 2002 Profesor invitat la Universitatea din Lyon (câte patru luni).

1999 Profesor invitat la Georgia Institute of Technology, Atlanta (cinci luni).

1998 Profesor invitat la Georgia Institute of Technology, Atlanta (trei luni).

1997 Profesor invitat la Universitatea din Geneva (o lună).

1996 Profesor invitat la Universitatea din Lille (o lună).

1994–1995 Profesor invitat la Georgia Institute of Technology, Atlanta (zece luni).

1992 Profesor invitat la Universitatea din Bordeaux, (şase luni).

1991 Participant la anul Mittag-Leffler de spaţii de funcţii (o lună).

1990–1991 Profesor invitat la Universitatea din Indiana University, Bloomington (trei luni), UCLA (o lună), Texas A&M University (o lună).

1983, 1985 Cercetător invitat la Institutul Steklov, St.Petersburg (câte o lună).

1984 Cercetător invitat la Institutul de Matematică al Academiei Cehoslovace (o lună).

Prezentări la conferinţe internaţionale

Great Plains Operator Theory Symposium (Fortworth 2017).

Workshop on Operator Theory and Complex Analysis (Lisbon 2017).

Complex Geometry and Operator Theory (Bangalore 2015).

Recent Trends in Operator Theory and Function Theory (Lille 2015).

Conference on Harmonic and Functional Analysis, Operator Theory and Applications (Bordeaux 2015).

Operator Theory and Operator Algebras (Bangalore 2014)

Workshop on Operator Theory and Complex Analysis (Lisbon 2014).

International Workshop on Operator Theory and Applications (Bangalore 2013).

Invariant subspaces of the shift operator (Montreal 2013).

Joint Meeting AMS-SMR (Alba Iulia 2013).

Sz.-Nagy Centennial Conference (Szeged 2013).

Recent Advances in Operator Theory and Operator Algebras (Bangalore 2013).

Matrices and Operators (Bangalore 2012).

Workshop on Operator Theory and Complex Analysis (Lisbon 2012).

Romanian-Finnish Seminar on Complex Analysis (Ploiesti 2012).

Summer School in Operator Theory (Sevilla 2012).

Great Plains Operator Theory Symposion (Houston, 2012).

Wabash Seminar (Crawfordsville, 2007, 2012).

International Workshop on Operator Theory and Applications (Sevilla 2011).

Al 7-lea Congres al Matematicienilor Români (Braşov 2011).

Analysis Days (Bordeaux 2010).

Operator Theory and Related Topics (Lille 2010).

Banach Algebras Conference (Bedlewo 2009).

International Workshop on Mathematical Analysis and Applications (Jaca 2009).

Fifth Linear Algebra Workshop (Kranjska Gora 2008).

Functional and Harmonic Analysis Days (Lille 2008).

II Winter School in Complex Analysis and Operator Theory (Sevilla 2008).

Al 6-lea Congres al Matematicienilor Români (Bucureşti 2007).

Workshop on Functional Analysis and its Applications (Nemecka, 2005, 2007).

Operator Algebras and Mathematical Physics (Bucureşti, 2005).

International Workshop on Operator Theory and Applications (Newcastle, 2004).

North British Functional Analysis Seminar (Edinburgh, 2004).

Conference on Spaces of Analytic Functions (Luminy, 2002).

International Meetings on Operator Theory (Timişoara şi Bucureşti, 1978-2008).

East Carolina Analysis Days (Greenville, 1998).

Great Plains Operator Theory Symposion (Cincinnati, 1995).

Southeastern Analysis Meeting (Atlanta, 1995, Tuscaloosa 1998, Nashville 1999).

Banach Semester on operator theory (Warsaw, 1994 and 1996).

Analysis Conference dedicated to B. Sz-Nagy (Szeged, 1993).

Operator Theory days (Luminy, 1993 and 1995, Lille 1997).

International Conference on Operator Theory and Numerical Analysis(Warsaw, 1981)

Semestrul Mittag-Leffler de subspaţii invariante (Stockholm, 1980).

Seminariile internaţionale de analiză funcţională (Cehoslovacia, 1981, 1982, 1983, 1984, 1988 ; Republica Cehă 1993).

Prezentări la colocvii şi seminarii

University of Virginia (2017).

University of Quebec (2013).

Pomona College (2012).

Texas A&M University (1995, 1998, 2007).

University of California at Los Angeles (2007).

University of Illinois at Urbana-Champaign (2007).

Universitatea din Ljubljana (2006).

Indiana University (2005).

Universitatea din Cracovia (1999, 2005).

Washington University at Saint Louis (2001).

Kansas State University (2001).

Virginia Institute of Technology (2001).

Universidad Central de Venezuela (1998).

University of Texas at San Antonio (1998, 2012).

University of Kansas (1998).

Universitatea din Lyon (1998, 2004, 2005, 2009).

Universitatea din Lille (2000, 2001, 2002, 2003, 2013).

Universitatea din Bordeaux (1996, 2000, 2001, 2002, 2003, 2004, 2005, 2008, 2009, 2010, 2013).

Universitatea din Marseille (2005, 2009).

Universitatea din Montpellier (1992).

University of California at San Diego (1991).

University of California at Berkeley (1991).

College of William and Mary, Williamsburg (1990).

Institutul Steklov din St.Petersburg (1983, 1985).

Institutul de Matematică al Academiei Cehoslovace de Ştiinţe (1979, 1984).

Cursuri ţinute

- În România :

  — diverse cursuri la nivel licenţă la Universitatea din Bucureşti şi Universitatea Politehnicădin Bucureşti ;

  — curs de nivel master de teoria operatorilor la Universitatea din Bucureşti ;
- În Franţa :

  — diverse cursuri de matematică la nivel licenţă la Universităţile din Bordeaux, Lyon, Besançon şi Lille.
- În Statele Unite :

  — diverse cursuri de matematică la nivel licenţă la Georgia Institute of Technology şi Indiana University ;

  — curs nivel master de teoria operatorilor şi teoria sistemelor la Georgia Institute of Technology.

Granturi de cercetare

- Grant COBASE de la NSF, 2001.
- Grant de cooperare de la NSF, 2004–2006.
- Director de Grant CEX, 2001-2003.
- Director de Grant CNCSIS, 2002-2004.
- Director de Grant CEEX, 2006-2008.
- Director de Grant CNCS, 2009-2011.
- Director de Grant CNCS, 2011-2016.

Premii

Premiul *Simion Stoilow* al Academiei Române acordat în 2013 pentru lucrări din anul 2011.

Alte activităţi

- Director Adjunct al Institului de Matematică *Simion Stoilow* al Academiei Române (din 2014).
- Editor asociat la *Journal of Operator Theory, Mathematical Reports, Revue Roumaine de Mathématiques Pures et Appliquées, Analele Universităţii A.I. Cuza.*
- Organizarea mai multor conferinţe internaţionale.

Listă de lucrări

1 A Szegő type theorem for truncated Toeplitz operators, cu Elizabeth Strouse şi Mohamed Zarrabi, *Journal of Approximation Theory* 220 (2017), 12–30.

2 Factorizations of Kernels and Reproducing Kernel Hilbert Spaces, cu R. Kumari, J. Sarkar şi S. Sarkar, *Integral Equations and Operator Theory* 87 (2017), 225–244.

3 Classes of contractions and Harnack domination, cu Catalin Badea şi Laurian Suciu, *Revista Matematica Iberoamericana* 33 (2017), 469–488.

4 An extremal problem for characteristic functions, cu I. Chalendar, S.R. Garcia şi W.T. Ross, *Trans. Amer. Math. Soc.* 368 (2016), 4115-4135.

5 A short introduction to de Branges–Rovnyak spaces, în *Invariant Subspaces of the Shift Operator*, Contemporary Mathematics, AMS 2015, 21–38.

6 Note on a Julia operator related to model spaces, în *Invariant Subspaces of the Shift Operator*, Contemporary Mathematics, AMS 2015, 247–254.

7 Contractively included subspaces of Pick spaces, cu Chafiq Benhida, *Complex Anal. Oper. Theory* 9 (2015), 245–264.

8 Commutation relations for truncated Toeplitz operators, cu I. Chalendar, *Operators and Matrices*, 8 (2014), 877–888.

9 Nonextreme de Branges–Rovnyak spaces as models for contractions, cu Javad Mashreghi, *Integral Equations Operator Theory* **80** (2014), 137-152.

10 Schur coupling and related equivalence relations for operators on a Hilbert space, *Linear Algebra Appl.* **452** (2014), 106-119.

11 The numerical range of a contraction with finite defect numbers, cu H. Bercovici, *J. Math. Anal. Appl.* **417** (2014), 42–56.

12 Two remarks about nilpotent operators of order two, cu S.R. Garcia şi B. Lutz, *Proc. Amer. Math. Soc.* **142** (2014), 1749–1756.

13 Embeddings of Müntz spaces : the Hilbertian case, cu S. Waleed Noor, *Proc. Amer. Math. Soc.* **141** (2013), 2009–2023.

14 A note on composition operators in a half-plane, cu H. Bercovici, *Arch. Math. (Basel)* **99** (2012), 567–576.

15 Unitary equivalence to truncated Toeplitz operators, cu E. Strouse şi M. Zarrabi, *Indiana Univ. Math. J.* **61** (2012), 525–538.

16 Embedding theorems for Müntz spaces, cu I. Chalendar şi E. Fricain, *Ann. Inst. Fourier* **61** (2011), 2291–2311.

17 Factorization of analytic self-maps of the half-plane, cu H. Bercovici, *Ann. Acad. Sci. Fenn.* **37** (2012), 1–12.

18 Numerical ranges of $C_0(N)$ contractions, cu Ch. Benhida şi P. Gorkin, *Integral Equations Operator Theory* **70** (2011), 265–279.

19 A family of reductions for Schubert intersection problems, cu H. Bercovici şi W.S. Li, *J. Algebraic Combin.* **33** (2011), 609–649.

20 Extensions of positive definite functions on amenable groups, cu M. Bakonyi, *Canad. Math. Bull.* **54** (2011), 3–11.

21 Bounded symbols and reproducing kernel thesis for truncated Toeplitz operators, cu A. Baranov, I. Chalendar, E. Fricain, J. Mashreghi, *J. Funct. Anal.* **259** (2010), 2673–2701.

22 Intersections of Schubert varieties and eigenvalue inequalities in an arbitrary finite factor, cu H. Bercovici, B. Collins, K. Dykema şi W.S. Li, *J. Funct. Anal.* **258** (2010), 1579-1627.

23 On an extremal problem of Garcia şi Ross, cu I. Chalendar şi E. Fricain, *Operators şi Matrices* **3** (2009), 541–546.

24 The Horn conjecture for sums of compact selfadjoint operators, cu H. Bercovici şi W.S. Li, *Amer. J. Math.* **131** (2009), 1543–1567.

25 On certain Riesz families in vector-valued de Branges–Rovnyak spaces, cu N. Chevrot şi E. Fricain, *J. Math. Anal. Appl.* **355** (2009), 110–125.

26 Finitely strictly singular operators between James spaces, cu I. Chalendar, E. Fricain, A. Popov şi V. Troitsky, *J. Funct. Anal.* **256** (2009), 1258–1268.

27 A note on the stability of linear combinations of algebraic operators, cu I. Chalendar şi E. Fricain, *Extracta Math.* **23** (2008), 43–48.

28 The central completion of a positive block operator matrix, cu M. Bakonyi, in *Operator theory, structured matrices şi dilations*, 69–83, Theta, Bucureşti, 2007.

29 The characteristic function of a complex symmetric contraction, cu N. Chevrot şi E. Fricain, *Proc. Amer. Math. Soc.* **135** (2007), 2877–2886.

30 Extensions of positive definite functions on free groups, cu M. Bakonyi, *J. Functional Analysis*, **246** (2007), 31–49.

31 Some automorphism invariance properties for multicontractions, cu Ch. Benhida, *Indiana Univ. Math. J.* **56** (2007), 481–500.

32 Weak contractions and trace class perturbations, cu H. Bercovici, *Oper. Matrices* **1** (2007), 71–85.

33 Characteristic functions for multicontractions and automorphisms of the unit ball, cu Ch. Benhida, *Integral Equations Operator Theory* **52** (2007), 153–166.

34 The characteristic function of a complex symmetric contraction, cu N. Chevrot şi E. Fricain, *Proc. A.M.S.* **135** (2007), 2877–2886.

35 Trace-class perturbations and functional calculus, cu H. Bercovici, în *Operator Theory, Operator Algebras şi Applications*, Deguang Han, Palle E.T. Jorgensen şi D.R. Larson, Editors, Contemporary Mathematics **414**, American Mathematical Society, 2006, 399–402.

36 Inner-outer factorization for operator-valued functions on ordered groups, cu M. Bakonyi, *Studia Mathematica* **169** (2005), 295–303.

37 A remark on positive definite functions on free groups, cu M. Bakonyi, *Demonstratio Mathematica* **39** (2006), 317–320.

38 The relaxed intertwining lifting in the coupling approach, cu W.S. Li, *Integral Equations Operator Theory* **54** (2005), 97–111.

39 Power boundedness and similarity to contractions for some perturbations of isometries,cu G. Cassier, *Journal of Mathematical Analysis and Applications* **293** (2004), 160–180.

40 Approximation theory and matrix completions, cu D. Hadwin şi D.R. Larson, *Linear Algebra Appl.* **377** (2004), 165–179.

41 Functional models and asymptotically orthonormal sequences, cu I. Chalendar şi E. Fricain *Ann. Institut Fourier*, **53** (2003), 1527–1549.

42 The intertwining lifting theorem for ordered groups, cu M. Bakonyi, *J. Functional Analysis* **199** (2003), 411–426.

43 A von Neumann type inequality for certain domains in $\mathbf{C}^n$, cu C.-G. Ambrozie, *Proceedings of the AMS* **131** (2003), 859–869.

44 The weighted intertwining lifting theorem in the coupling approach, *Integral Equations and Operator Theory* **42** (2002), 493–497.

45 On an intertwining lifting theorem for certain reproducing kernel Hilbert spaces, cu C.-G. Ambrozie, *Integral Equations and Operator Theory* **42** (2002), 373–384.

46 On an extension problem for polynomials, cu M. Bakonyi, *Bull. London Math. Soc.* **33** (2001), 599–605.

47 A note on finite rank perturbations of contractions and dual algebras, cu Ch. Benhida, *Bull. Math. Soc. Sc. Math. Roum.*, **44(92)** (2001), 193–198.

48 Finite rank perturbations of contractions, cu Ch. Benhida, *Integral Equations Operator Theory* **36** (2000), 253-268.

49 A commutant lifting theorem for the polydisc, cu J. A. Ball, W. S. Li şi T. T. Trent, *Indiana Univ. Math. Journal* **48** (1999), 653-675.

50 On the three chains theorem in intertwining lifting, *Bul. Acad. Sti. Rep. Moldova* **3(28)** (1998), 133-136.

51 Regular dilations and models for multicontractions, *Indiana Univ. Math. Journal* **47** (1998), no.2, 671-684.

52 The central Ando dilation and related orthogonality properties, cu W. S. Li, *J. Funct. Analysis* **154** (1998), 1-16.

53 On isometric intertwining liftings, cu W. S. Li, *Operator Theory : Advances and Applications* **104** (1998), 155-167.

54 On a conjecture of Cotlar and Sadosky on multidimensional Hankel operators, cu M. Bakonyi, *Comptes Rendus de l'Academie des Sciences* **325**, I (1997), 1071-1075.

55 Functional models and finite dimensional perturbations of the shift, cu Ch. Benhida, *Integral equations and Operator Theory* **29**, 2 (1997), 187-196.

56 A short proof of N.Young's theorem on the orbits of the action of the symplectic group, *Proc. of the Edinburgh Mathematical Society* **40** (1997), 309-315.

57 On some perturbations of completely non-unitary contractions of multiplicity two, *Acta Scientiarum Mathematicarum* **61** (1995), 477-491.

58 Redheffer products and characteristic functions, *J. Math. Anal. Appl.* **196** (1995), 823-840.

59 A note on Cartan open subsets of $\mathbf{R}^n \times \mathbf{C}$, cu E.Pascu, *Rev. Roum. Math. Pures Appl.* **38** (1993), 35-36.

60 Completions of matrices and the commutant lifting theorem, *J. Functional Analysis* **104** (1992), 291-298.

61 A note on Parrott's strong theorem, *J. Math. Anal. Appl.* **171** (1992), 288-293.

62 C_p estimates for certain kernels on local fields, *Studia Math.* **88** (1988), 43-50.

63 C_p estimates for certain kernels : the case $0 < p < 1$, *J. Functional Analysis* **72** (1987), 368-380.

64 A topological characterization of Cartan open subsets of $\mathbf{R} \times \mathbf{C}$, cu E.Pascu, *Rev. Roum. Math. Pures Appl.* **31** (1986), 309-316.

65 Prediction theory and choice sequences : an alternate approach, *Operator Theory : Advances and Applications* **17** (1986), 341-352.

66 A note on C_p estimates for certain kernels, *Integral Equations Operator Theory* **9** (1986), 295-304.

67 On the notion of prediction in completeness theory, cu I.Suciu, in *Prediction Theory şi Harmonic Analysis*, North Holl şi, Amsterdam, 1983, 367-378.

68 A new algorithm for detecting reflection coefficients in layered media, cu Gr.Arsene, Z.Ceauşescu şi Fl.-A.Potra, *Ann.Geophysicae* **1** (1983), 285-290.

69 Remark on the Bartle-Graves theorem, *Operator Theory : Advances and Applications* **11** (1983), 389-394.

70 The Levinson algorithm in linear prediction, *Operator Theory : Advances and Applications* **8** (1982), 217-223.

71 Characterizations of some Harnack parts of contractions, cu T. Ando şi I.Suciu, *J. Operator Theory* **2** (1979), 233-245.

72 Generalizări ale unor funcţii definite pe $L(H)$, cu H.Bercovici şi R.N.Gologan, *St. Cerc. Mat.* **27** (1975), 131-156.

73 On Riemann-Stieltjes integrability, *Rev. Roum. Math. Pures Appl.* **28** (1973), 291-293.

Cărţi :

Analiză Matematică (cu A. Halanay şi R.N. Gologan), două volume, 1998 şi 1999, Matrixrom.

Recent Advances in Operator Theory and Operator Algebras (cu H. Bercovici, D. Kerr şi E. Katsoulis), 2017 CRC Press.

Coeditor la volume de proceedings :

- *Operator Theory : the State of the Art*, The Theta Foundation, Bucureşti, 2016.
- *The Varied Landscape of Operator Theory*, The Theta Foundation, Bucureşti, 2014.
- *An Operator Theory Summer*, The Theta Foundation, Bucureşti, 2012.
- *Operator Theory Live*, The Theta Foundation, Bucureşti, 2010.
- *Hot Topics in Operator Theory*, The Theta Foundation, Bucureşti, 2008.
- *Operator Theory 20*, The Theta Foundation, Bucureşti, 2006.
- *Recent advances in operator theory, operator algebras, and their applications*, Birkhäuser Verlag, 2004.
- *Operator Theoretical Methods*, The Theta Foundation, Bucureşti, 2000.
- *Operator Theory, Operator Algebras, and Related Topics*, The Theta Foundation, Bucureşti, 1997.
- *Topics in Operator Theory, Operator Algebras, and Applications*, Institute of Mathematics of the Romanian Academy, Bucureşti, 1995.
- *Operator Extensions, Interpolation of Functions, and Related Topics*, Birkhäuser Verlag, 1993.