CURRICULUM VITAE

Name : Dan Grigore TIMOTIN.

Date of birth : 24.01.1953.

Place of birth : Bucharest, Romania.

E-mail : `Dan.Timotin@imar.ro, dtimotin@theta.ro.`

Address : Institute of Mathematics of the Romanian Academy, P.O. Box 1-764, Bucharest 014700, Romania.

Education

1978–1986 Postgraduate studies at the University of Bucharest, Romania, and the National Institute for scientifical and Technical Creation (INCREST) ; Ph.D. in Mathematics, May 1986 ; advisor : D. Voiculescu.

1975–1976 Graduate studies at the University of Bucharest, Romania. M.S. in Mathematical Analysis, Summer 1976.

1971–1975 University of Bucharest, Romania. Diploma (B.A.) in Mathematics, Summer 1975.

Employment

1990– Principal Researcher, Institute of Mathematics of the Romanian Academy.

1995– President of the *Theta Foundation*, publisher of *Journal of Operator Theory* and of mathematical books.

1991–2003 Associate Lecturer, University of Bucharest and Polytechnical Institute of Bucharest.

1979–1990 Research Scientist, Department of Mathematics of the National Institute for Scientifical and Technical Creation (INCREST), Bucharest and Associate Lecturer of Mathematics, University of Bucharest.

1976–1979 Computer Analyst, Computing Center of the Geological and Geophysical Prospecting Enterprise (IPGGH), Bucharest.

Research interests

- Functional Analysis and Operator Theory.
- Function Spaces.
- Applications to Linear Systems.

Visiting positions

2009 Invited Professor at the University of Lyon, France (six months).

2008 Invited Professor at the University of Lyon, France (six months).

2007 Visiting Professor at Indiana University, Bloomington (five months).

2004, 2005, 2006 Invited Professor at the University of Lille, France (three months each year).

2004 Invited Professor at the University of Bordeaux, France (one month).

2004, 2005 Invited researcher at Georgia State University, in the framework of a NSF cooperation grant (3 $\times$ one month).

2003 Invited researcher at the University of Lyon, France (one month).

2002–2003 Invited Professor at the University of Besançon, France (six months).

2001 Invited researcher at Georgia State University, in the framework of the COBASE program (two months).

2000–2002 Invited Professor at the University of Lyon, France (four months each year).

1999 Visiting Associate Professor at Georgia Institute of Technology, Atlanta (five months).

1998 Visiting Associate Professor at Georgia Institute of Technology, Atlanta (three months).

1997 Invited Professor at the University of Genève, Switzerland (one month).

1996 Invited Professor at the University of Lille, France (one month).

1994–1995 Visiting Associate Professor at Georgia Institute of Technology, Atlanta.

1992 Invited Professor at the University of Bordeaux, France (six months).

1991 Participant at the Mittag-Leffler year on function spaces (one month).

1990–1991 Invited Scholar at Indiana University, Bloomington (three months), UCLA (one month), Texas A&M University (one month).

1983, 1985 Invited researcher at Steklov Institute, St.Petersburg (one month and two weeks respectively).

1984 Invited researcher at the Institute of Mathematics of the Czechoslovac Academy (one month).

Invited lectures and contributed presentations at international meetings

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).

6th Congress of Romanian Mathematicians (Bucharest 2007).

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

Operator Algebras and Mathematical Physics (Bucharest, 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 and Bucharest, Romania, 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)

Mittag-Leffler semester on invariant subspaces (Stockholm, 1980).

International Seminars on Functional Analysis (Czechoslovakia, 1981, 1982, 1983, 1984, 1988 ; Czeck Republic 1993).

Colloquium talks

Texas A&M University (2007).

University of California at Los Angeles (2007).

University of Illinois at Urbana-Champaign (2007).

University of Ljubljana (2006).

Indiana University (2005).

University of Krakow (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).
University of Kansas (1998).
University of Lyon (1998, 2004, 2005, 2009).
University of Lille (2000, 2001, 2002, 2003).
University of Bordeaux (1996, 2000, 2001, 2002, 2003, 2004, 2005, 2008, 2009).
University of Marseille (2005, 2009).
Texas A&M University (1995, 1998).
University of Montpellier (1992).
University of California at San Diego (1991).
University of California at Berkeley (1991).
College of William and Mary, Williamsburg (1990).
Steklov Institute at St.Petersburg (1983, 1985).
Institute of Mathematics of the Czechoslovac Academy of Sciences (1979, 1984).

Teaching

- In Romania :
  — various courses at undergraduate level at the University of Bucharest and the Polytechnical Institute of Bucharest ;
  — graduate course on operator theory ;
  — advisor of M.S. theses.
- In France :
  — various courses at undergraduate level at the Universities of Bordeaux, Lyon, Besançon and Lille.
- In the United States :
  — various courses at undergraduate level at Georgia Institute of Technology ;
  — graduate course on operator theory and applications to linear systems.

Administration and service

- Member of the Scientific Council of the Institute of Mathematics of the Romanian Academy (since 1990).
- Associate editor of *Journal of Operator Theory* (since 1994) and technical coordinator of the journal between 1994–2002.
- President of the Theta Foundation (since 1995), whose purpose is to help mathematical research and teaching in Romania.
- Organisation of several international conferences.
- Organisation of seminars and workgroups at the Institute of Mathematics of the Romanian Academy.
- Organisation of the International Mathematical Olympiad (Bucharest 1999).

Languages : French, English (very well), Italian, Spanish (well) Russian (read), German (little).

Publications

1 Intersections of Schubert varieties and eigenvalue inequalities in an arbitrary finite factor, with H. Bercovici, B. Collins, K. Dykema, and W.S. Li, *J. Funct. Anal.*, to appear.

2 On a problem of Garcia and Ross, with I. Chalendar and E. Fricain, *Operators and Matrices*, to appear.

3 The eigenvalues of a sum of compact operators, with H. Bercovici and W.S. Li, *Amer. J. Math.*, to appear.

4 Positive definite functions on amenable groups, with M. Bakonyi, *Canadian Mathematical Bulletin*, to appear.

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

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

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

8 The central completion of a positive block operator matrix, with M. Bakonyi, in *Operator theory, structured matrices, and dilations*, 69–83, Theta, Bucharest, 2007.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

23 2-chordal graphs and matrix completions, *Ann. Univ. Timisoara*, à paraître.

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

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

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

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

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

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

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

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

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

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

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

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

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

37 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.

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

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

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

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

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

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

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

45 On the geometry of some functional models, preprint INCREST, 1986.

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

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

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

49 On the notion of prediction in completeness theory, with I.Suciu, in *Prediction Theory and Harmonic Analysis*, North Holland, Amsterdam, 1983, 367-378.

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

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

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

53 Characterizations of some Harnack parts of contractions, with T.Ando and I.Suciu, *J. Operator Theory* **2** (1979), 233-245.

54 Généralizations de certaines fonctions définies sur $L(H)$ (roumain), with H.Bercovici and R.N.Gologan, *St. Cerc. Mat.* **27** (1975), 131-156.

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

Books :

Mathematical Analysis (with A. Halanay and R.N. Gologan), a course in two volumes in Romanian, 1998 and 1999, Editing House Matrixrom.

Coeditor of conference proceedings volumes :

- *Hot Topics in Operator Theory*, The Theta Foundation, Bucharest, 2008.
- *Operator Theory 20*, The Theta Foundation, Bucharest, 2006.
- *Recent advances in operator theory, operator algebras, and their applications*, Birkhäuser Verlag, 2004.
- *Operator Theoretical Methods*, The Theta Foundation, Bucharest, 2000.
- *Operator Theory, Operator Algebras and Related Topics*, The Theta Foundation, Bucharest, 1997.
- *Topics in Operator Theory, Operator Algebras and Applications*, Institute of Mathematics of the Romanian Academy, Bucharest, 1995.
- *Operator Extensions, Interpolation of Functions and Related Topics*, Birkhäuser Verlag, 1993.