

## CURRICULUM VITAE

### **Narcisse J. Randrianantoanina**

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### **PERSONAL DATA:**

- Place of Birth: Andilamena, Madagascar
- Marital Status: Married  
    Wife: Beata Randrianantoanina  
    Children : Anita and Yola

### **EDUCATION**

- Licence de Mathématiques, Université d'Antananarivo, Madagascar, 1985.
- Maîtrise de Mathématiques, Université d'Antananarivo, Madagascar, 1986.
- D.E.A. de Mathématiques pures, Université d'Antananarivo, Madagascar, 1988
- Ph.D. in Mathematics, University of Missouri-Columbia, 1993  
    Advisor: Elias Saab.

### **ACADEMIC CAREER**

- 2005 - Present Professor of Mathematics, Miami University, Oxford, Ohio.
- 2000 - 2005 Associate Professor, Miami University, Oxford, Ohio.
- Spring 2003 Visiteur, Université de Franche-Comté, Besançon, France.
- 1996 - 2000 Assistant Professor, Miami University, Oxford, Ohio.
- 1994 - 1996 Post-doctoral Lecturer, University of Texas, Austin, Texas (on leave, Spring 1996).
- Spring 1996 Post-doctoral Fellow, Mathematical Sciences Research Institute (MSRI) Berkeley, California.

- 1993-1994 Visiting position, Bowling Green State University, Bowling Green, Ohio.

## PROFESSIONAL SOCIETY

American Mathematical Society

## RESEARCH AREAS

**Primary:** Banach space theory.

**Secondary:** Probability, Operator algebras.

## RESEARCH GRANTS/AWARDS

- NSF DMS-0552245 “Conference on Banach spaces and their applications in analysis”: Co-PI; (\$32,700; May 2006-April 2007);
- NSF DMS-0456781 “Banach space structures of non-commutative  $L^p$ -spaces and non-commutative martingale inequalities”: principal investigator; (\$104,336; July 2005-June 2008);
- Miami University Distinguished Scholar Award 2001;
- NSF DMS-0096696 “Banach space structures of non-commutative  $L^p$ -spaces and non-commutative Hardy spaces”: principal investigator; (\$93,331 July 2001-June 2004);
- Miami University Summer Research Appointment (Summer of 2001);
- NSF DMS-9703789 “Structures of vector-valued function spaces and non-commutative function spaces”: principal investigator; (\$59,250; July 1997–June 2000);
- Miami University Summer Research Appointment (Summer of 1997);
- NSF Young Investigator, under E. Odell and H. Rosenthal of the University of Texas at Austin, (Summer of 1996).

## PUBLICATIONS

1. (with E. Saab) The complete continuity property in Bochner spaces, **Proc. Amer. Math. Soc.**, **117** (1993), 1109–1113.
2. (with E. Saab) Weak compactness in the space of vector valued measures, **Rocky Mountain J. Math.**, **24** (1994), 681–688.
- 3a. (with E. Saab) Stabilité de quelques propriétés d’espaces de Banach, **C. R. Acad. Sc. Paris**, t. **319** Série I, (1994), 959–962.
- 3b. (with E. Saab) Stability of some types of Radon-Nikodym properties, **Illinois. J. Math.**, **39** (1995), 416–430.
4. Pelczyński’s property (V) on spaces of vector-valued function spaces, **Colloq. Math.**, **71** (1996), 63–78.

5. Complemented copies of  $\ell^1$  and Pelczyński's property ( $V^*$ ) in Bochner spaces, **Canad. J. Math.**, **48** (1996) , 625–640.
6. Radon-Nikodym properties for spaces of compact operators, **Rev. Roum. Math. Pures Appl.**, **41** (1996), 119–131.
7. Some remarks on the Dunford-Pettis property, **Rocky Mountain J. Math.** **27** (1997), 1199–1213.
8. Pelczyński's property ( $V^*$ ) for symmetric operator spaces, **Proc. Amer. Math. Soc.**, **125** (1997), 801–806.
9. Hilbert Transform associated with finite maximal subdiagonal algebras, **J. Austral. Math. Soc.** (series A), **65** (1998), 388–404.
10. (with E. Saab) The near Radon-Nikodym property in Lebesgue Bochner spaces, **Illinois J. Math.** **42** (1998), 40–57.
11. Factorization of operators on  $C^*$ -algebras, **Studia Math.**, **128** (1998), 273–285.
12. (with P. Dowling and B. Turett) Remarks on James's Distortion Theorems, **Bull. Austral. Math. Soc.**, **57** (1998), 49–54.
13. Absolutely summing operators on non commutative  $C^*$ -algebras and applications, **Houston J. Math.**, **25** (1999) 745–756.
14. Complemented copies of  $\ell_1$  in spaces of vector-valued measure and applications, **Math. Nachrichten**, **202** (1999) 109–123.
15. (with P. Dowling and B. Turett) Remarks on James's distortion theorems II, **Bull. Austral. Math. Soc.**, **59** (1999) 515–522.
16. (with P. Dowling) Space of compact operators on a Hilbert space with the fixed point property, **J. Funct. Anal.**, **168** (1999) 111–120.
17. (with P. Dowling) Asymptotically isometric copies of  $\ell^\infty$  in Banach spaces and a theorem of Bessaga and Pelczyński, **Proc. Amer. Math. Soc.**, **128** (2000) 3391–3397.
18. Compact range property and operators on  $C^*$ -algebras, **Proc. Amer. Math. Soc.**, **129** (2001) 865–871.
19. (with P. Dowling) Asymptotically isometric copies of  $c_0$  and  $\ell^1$  in Bochner-spaces, **J. Math. Anal. Appl.**, **262** (2001) 419–434.
20. Kadec-Pelczynski decomposition for Haagerup  $L^p$ -spaces, **Math. Proc. Cambridge Philos. Soc.**, **132** (2002) 137–154.
21. Spectral subspaces and non-commutative Hilbert transforms, **Colloq. Math.**, **91** (2002) 9–27.

22. Banach spaces with complete continuity properties, **Quaestiones Math.**, **25** (2002) 29–36.
23. Non-commutative martingale transforms, **J. Funct. Anal.**, **194** (2002) 181–212.
24. Sequences in non-commutative  $L^p$ -spaces, **J. Operator Theory**, **48** (2002) 255–272.
25. Embeddings of  $\ell_p$  into non-commutative spaces, **J. Austral. Math. Soc.**, **74** (2003) 331–350.
26. (with P. Dowling) Riemann-Lebesgue properties of Banach spaces associated with subsets of countable discrete abelian groups, **Glasgow Math. J.**, **45** (2003) 159–166.
27. Non-commutative subsequence principles, **Math. Zeitschrift**, **245** (2003) 625–644.
28. Square function inequalities for non-commutative martingales, **Israel J. Math.**, **140** (2004) 333–365.
29.  $C^*$ -algebras and factorization through diagonal operators, **Canad. Math. Bulletin**, **47** (2004) 615–623.
30. Weak-type inequalities of non-commutative martingales, **Proc. London Math. Soc.**, **91** (2005) 509–544.
31. (with J. Parcet) Gundy’s decomposition for non-commutative martingales, **Proc. London Math. Soc.**, **93** (2006) 227–252.
32. Conditioned square functions for non-commutative martingales, **Ann. Probab.**, **35** (2007) 1039–1070.
33. (with W. B. Johnson) On complemented versions of James’s distortion theorems, **Proc. Amer. Math. Soc.**, **135** (2007) 2751–2757.
34. Embeddings of non-commutative  $L^p$ -spaces into preduals of finite von Neumann algebras, **Israel J. Math.**, **163** (2008) 1–27.
35. Non-commutative martingale  $VMO$ -spaces, **Studia Math.**, **191** (2009) 39–55.

**Book edited:** Banach spaces and their applications in analysis. Proceedings of the International Conference in honor of Nigel Kalton’s 60th birthday held at Miami University, Oxford, OH, May 22–27, 2006. Edited by Beata Randrianantoanina and Narcisse Randrianantoanina. Walter de Gruyter GmbH and Co. KG, Berlin, 2007. x+453 pp. ISBN: 978-3-11-019449-4 46-06.

## PRESENTATIONS AT MEETINGS/CONFERENCES

1. Joint Annual Meeting AMS-MAA, contributed talk, January 1993, San Antonio, Texas.

2. Conference on Algebras in Analysis, contributed talk, September 1993, Kent State University, Kent, Ohio.
3. AMS Regional Meeting, Special Session on Banach Space Theory, invited talk, October 1993, Texas A&M University, College Station, Texas.
4. The Summer Informal Regional Functional Analysis Seminar (SUMIRFAS), invited talk, August 1994, Texas A&M University, College Station, Texas.
5. AMS Regional Meeting, Special Session on Geometry of Banach Spaces, invited talk, November 1995, Kent State University, Kent, Ohio.
6. Mathematical Sciences Research Institute (MSRI), Concentration in Infinite Dimensional Convex Geometry, invited talk, February 1996, Berkeley, California.
7. The Informal Regional Functional Analysis Seminar (IRFAS), invited talk, August 1996, Texas A&M University, College Station, Texas.
8. AMS Regional Meeting, Special Session on Geometric Functional Analysis, invited talk, October 1996, Rider University, Lawrenceville, New Jersey.
9. AMS Regional Meeting, Special Session on Banach Spaces and Related Topics , invited talk, November 1996, University of Missouri, Columbia, Missouri.
10. Conference on Modern Banach Space Theory, invited hour address, Kent State University, December 1996, Kent, Ohio.
11. Workshop on Operator Spaces, invited talk, August 1997, Texas A&M University, College Station, Texas.
12. Third Conference on Function Spaces, contributed talk, May 1998, Southern Illinois University, Edwardsville, Illinois.
13. The Summer Informal Regional Functional Analysis Seminar (SUMIRFAS), invited talk, August 1998, Texas A&M University, College Station, Texas.
14. Spring School on Banach Space Theory, contributed talk, April 1999, Charles University of Prague, Paseky nad Jizerou, CZECH REPUBLIC.
15. AMS Regional Meeting, Special Session on Operator and Banach Space structures, invited talk, October 1999, University of Texas, Austin, Texas.
16. International Conference on Mathematical Analysis and its Applications (ICMAA2000), contributed talk, January 2000, National Sun Yat-sen University, Kaohsiung, TAIWAN, REPUBLIC OF CHINA.
17. Summer School on Functional Analysis, contributed talk, June 2000, Université de Franche-Comté, Besançon, FRANCE.
18. International Functional Analysis Meeting, contributed talk, July 2000, Universidad Politécnica de Valencia, Valencia, SPAIN.

19. Workshop on free probability and non-commutative Banach spaces, invited talk, January 2001, Mathematical Sciences Research Institute (MSRI), Berkeley, California.
20. AMS Regional Meeting, Special Session on Banach Spaces, Invited talk, March 2001, University of South Carolina, Columbia, South Carolina.
21. Trends in Banach spaces and operator theory, contributed talk, October 2001, University of Memphis, Memphis, Tennessee.
22. AMS Regional Meeting, Special Session on Banach Spaces and their applications, invited talk, March 2002, Georgia Institute of Technology, Atlanta, Georgia.
23. Conference on Non-commutative Phenomena and Random Matrices, contributed talk, August 2002, Pacific Institute for the Mathematical Sciences at the University of British Columbia, Vancouver, CANADA.
24. Workshop on Free Probability Theory and Non-commutative Martingales, contributed talk, June 2003, Greifswald, GERMANY.
25. Espaces d'Opérateurs et Applications, Invited talk, June 2003, Centre International de Rencontres Mathématiques (CIRM), Luminy-Marseille, FRANCE.
26. Workshop on Free Probability Theory and Non-commutative  $L_p$ -spaces, Invited talk, June 2004, Texas A & M University, College Station, Texas.
27. Wabash Modern Analysis conference, contributed talk, September 2004, UIPUI, Indianapolis, Indiana.
28. The Summer Informal Regional Functional Analysis Seminar (SUMIRFAS), invited talk, August 2005, Texas A&M University, College Station, Texas.
29. Seminar on Analysis ( a conference on the occasion of Elias Saab's 60th birthday), invited talk, December 2005, University of Missouri, Columbia, Missouri.
30. AMS Regional Meeting, Special Session on Banach Spaces and their applications, invited talk, April 2006, Florida International University, Miami, Florida.
31. Operator spaces, non-commutative  $L_p$ -spaces and applications, Invited talk, June 2007, Centre International de Rencontres Mathématiques (CIRM), Luminy-Marseille, FRANCE.
32. The international conference on Banach spaces and operator spaces, Invited talk, July 2007, Chern Institute of Mathematics, Nankai University, Tianjin, PEOPLE'S REPUBLIC OF CHINA.
33. International Conference on Interdisciplinary Mathematical and Statistical Techniques (IMST 2008/ FIM XVI), Invited talk, May 2008, The University of Memphis, Memphis, Tennessee.

## SEMINARS/COLLOQUIA

1. Colloquium, Christopher Newport University, March 1993, Newport News, Virginia.
2. Colloquium, Bowling Green State University, February 1994, Bowling Green, Ohio.
3. Invited Analysis seminar, Miami University, April 1994, Oxford, Ohio.
4. Seminar at the NSF Workshop on Linear Analysis and Probability, August 1995, Texas A&M University, College Station, Texas.
5. Colloquium, Miami University, February 1996, Oxford, Ohio.
6. Invited Analysis seminar, University of Missouri-Columbia, April 1996, Columbia, Missouri.
7. Invited Analysis Seminar, Institute of Mathematics (Polish Academy of Sciences), January 1997, Warsaw, POLAND.
8. Colloquium, Miami University, October 1998, Oxford, Ohio.
9. Colloquium, Cape Town University, June 1999, Cape Town, SOUTH AFRICA.
10. Seminar at the NSF Workshop on Linear Analysis and Probability, August 2000, Texas A&M University, College Station, Texas.
11. Invited Analysis Seminar, University of Illinois, April 2001, Urbana-Champaign, Illinois.
12. Seminar at the NSF Workshop on Linear Analysis and Probability, July 2001, Texas A&M University, College Station, Texas.
13. Invited Analysis Seminar, University of Illinois, November 2001, Urbana-Champaign, Illinois.
14. Invited Functional Analysis Seminar, Université de Franche-Comté, January 2003, Besançon, FRANCE.
15. Invited Analysis Seminar, Université Pierre et Marie Curie (Paris 6), June 2003, Paris, FRANCE.
16. Seminar at the NSF Workshop on Linear Analysis and Probability, July 2004, Texas A&M University, College Station, Texas.
17. Colloquium, University of Cincinnati, March 2005, Cincinnati, Ohio.
18. Invited Analysis Seminar, Texas A&M University, October 2005, College Station, Texas.
19. Seminar at the NSF Workshop on Analysis and Probability, July 2006, Texas A&M University, College Station, Texas.
20. Invited Analysis Seminar, Tianjin University of Technology, July 2007, Tianjin, PEOPLE'S REPUBLIC OF CHINA.

21. Seminar at the NSF Workshop on Analysis and Probability, July 2008, Texas A&M University, College Station, Texas.

### **CONFERENCE ORGANIZATION**

1. (with B. Randrianantoanina) Special Session on “Recent Trends in infinite dimensional Banach space Theory”, American Mathematical Society Sectional Meeting, Ohio University, Athens, Ohio, March 2004.
2. (with B. Randrianantoanina) Conference on “Banach spaces and their applications in analysis”, Miami University, Oxford, Ohio, May 2006.
3. (with W. Bryc) Special Session on “Random matrices and non-commutative probability”, American Mathematical Society Sectional Meeting, Miami University, Oxford, Ohio, March 2007.