

# CURRICULUM VITAE

## STEPHEN JAMES DILWORTH

### EDUCATION

Manchester Grammar School, 1970-77.  
B.A. (Wrangler = First Class Honours), Trinity College, Cambridge, 1980.  
M.A., Trinity College, Cambridge, 1984.  
Ph.D., Trinity College, Cambridge, 1985.

### EMPLOYMENT

2001-, Professor, University of South Carolina.  
1992-2001, Associate Professor, University of South Carolina.  
1986-1992, Assistant Professor, University of South Carolina.  
1985-86, Instructor, University of Texas at Austin.

### VISITING POSITIONS

2001-2002, Visiting Scholar, University of Texas at Austin.  
Spring 1994, Visiting Associate Professor, Bowling Green State University.  
Fall 1993, Visiting Associate Professor, Texas A&M University.  
1986-87, Lecturer, University of Texas at Austin.  
1984-85, Visiting Assistant Professor, University of Missouri.

### EDITORIAL WORK

Editorial Board, *Far East Journal of Mathematical Sciences*, 1998-.  
Editorial Board, *Function Spaces and Applications*, 2002-.

### PH.D. AND MS STUDENTS

Yu-Ping Hsu, *The uniform Kadec-Klee property in the unitary matrix spaces  $C_E$  and the Lorentz spaces  $L_{w,1}$* , Ph.D. August, 1993.  
Joseph P. Patterson, *An Extension of Elton's  $\ell_1^n$  Theorem to Complex Banach Spaces*, MS, June 2001.

### MEMBERSHIP OF PROFESSIONAL SOCIETIES

1. American Mathematical Society.
2. London Mathematical Society.
3. Mathematical Association of America.
4. Cambridge Philosophical Society.

PAPERS PRESENTED AT PROFESSIONAL MEETINGS

1. *Complemented Hilbertian subspaces of uniformly convex spaces*, Miniconference on Analysis, Indiana University - Purdue University at Indianapolis, April 1985 (contributed).
2. *Complemented Hilbertian subspaces of uniformly convex spaces*, Conference on Banach spaces and Classical Analysis, Kent State University, August 1985 (contributed).
3. *Convergence of certain martingales*, Special Session on Banach Space Theory at the American Mathematical Society Regional Meeting at University of Missouri-Columbia, November 1985 (invited).
4. *The Lorentz space  $L_{p,q}(0, \infty)$  and moment inequalities for sums of independent random variables in  $L_{p,q}$* , Conference on Banach Space Theory, Mathematisches Forschungsinstitut Oberwolfach (Germany), October 1986 (invited).
5. *Subspaces of  $L_{p,q}$* , Special Session on Banach Space Theory at the American Mathematical Society Regional Meeting at North Texas State University, November 1986 (invited).
6. *Geometry of Lorentz spaces through interpolation*, Symposium on the Applications of Banach space Theory, Cambridge University (England), December 1986 (invited).
7. *Unconditional and disjoint sequences in some function spaces*, Special Session of Banach Spaces and Harmonic Analysis at the American Mathematical Society Regional Meeting at Kent State University, April 1987 (invited).
8. *Random variables and rearrangement-invariant norms*, Conference on "Operators on Martingales", University of Arkansas, April 1987 (invited).
9. *On intersection of Lebesgue spaces*, Special Session on Banach Space Theory at the Annual Meeting of American Mathematical Society, Atlanta, January 1988 (invited).
10. *Analysis through the looking glass: some classical and not-so-classical Banach spaces*, Canadian Mathematical Society Annual Seminar on Banach Spaces and Convex Bodies, Banff (Canada), June 1988 (invited).
11. Invited Participant at the Microprogram on Banach Space Theory, Mathematical Sciences Research Institute (Berkeley), June-July 1988.
12. *On two function spaces which are similar to  $L_0$* , Conference on the Geometry of Banach Spaces, Strobl-am-Wolfgangsee (Austria), June 1989 (invited).
13. *A Fixed Point Property for the Lorentz spaces  $L_{p,1}(\mu)$* , Special Session on Banach Space Theory and Functional Analysis at the American Mathematical Society Regional Meeting at the University of North Texas, November 1990 (invited).
14. *A Fixed Point Property for the Lorentz spaces  $L_{p,1}(\mu)$* , U.S.-Israel Binational Foundation Workshop on Banach Space Theory and its Applications, Jerusalem (Israel), June 1991 (invited).
15. *Some convexity and fixed point properties for Hardy and Lebesgue-Bochner spaces*, Winter School in Abstract Analysis, Strobl-am-Wolfgangsee (Austria), February 1992 (invited).
16. *Some convexity and fixed point properties for Hardy and Lebesgue-Bochner spaces*,

Functional Analysis Meeting, The Citadel, April 1992 (invited).

17. *New convexity and fixed point properties for Hardy and Lebesgue-Bochner spaces*, Session on Functional Analysis, Joint Meeting of the American Mathematical Society and the London Mathematical Society, Cambridge (England), July 1992 (contributed).

18. *A result on the distribution of vector-valued Rademacher series*, International Conference on Functional Analysis, Mons (Belgium), August 1992 (invited).

19. *The distribution of vector-valued Rademacher series*, Special Session on Banach Space Theory at the Annual Meeting of the American Mathematical Society, San Antonio, January 1993 (invited).

20. *Banach spaces which admit a norm with the uniform Kadec-Klee property*, Functional analysis Meeting, Miami University, April 1993 (invited).

21. *Banach spaces which admit a norm with the uniform Kadec-Klee property*, Summer Informal Regional Functional Analysis Seminar, Texas A&M University, August 1993.

22. *Banach spaces which admit a norm with the uniform Kadec-Klee property*, Special Session on Banach Spaces and Operator Theory, Texas A&M University, October 1993 (invited).

23. *The Fourier transform of order statistics with applications to Lorentz spaces*, International Conference on “The interaction between Functional Analysis, Harmonic Analysis and Probability Theory”, University of Missouri-Columbia, June 1994 (contributed).

24. *Differentiability of the Pettis integral and weak and scalar convergence almost everywhere*, Conference on Infinite-dimensional Banach Space Theory, Mathematical Sciences Research Institute, Berkeley, February 1996 (invited 50 minute address).

25. *On various modes of scalar convergence in  $L_0(X)$* , Special Session on Geometric Functional Analysis, American Mathematical Society Regional Meeting at Rider University, October 1996 (invited).

26. *Inextensible homeomorphisms of Lebesgue null subsets of Euclidean sets with an application to extensible isometries of subspaces of  $C(\Delta)$* , Special Session on Banach Spaces and Related Topics, American Mathematical Society Regional Meeting at the University of Missouri-Columbia, November 1996. (invited).

27. *A Renorming of  $L_1$* , Conference on Modern Banach Space Theory, Kent State University, December 1996 (contributed).

28. *On non-surjective approximate isometries*, Special Session on Banach Spaces, American Mathematical Society Regional Meeting at the University of Louisville (Shelby Campus), March 20-21, 1998 (invited).

29. *On the extensibility of certain homeomorphisms and linear isometries*, Third Conference on Function Spaces, SIUE, May 19-23, 1998 (invited).

30. *Extremal approximately convex sets*, Geometric Aspects of Fourier and Functional Analysis, Kiel, Germany, August 10-14, 1998 (invited).

31. *On the size of approximately convex sets in normed spaces*, Special Session on ‘Banach and Operator Spaces’, American Mathematical Society Regional Meeting at the University

- of Texas at Austin, October 1999, (invited but unable to attend due to emergency).
32. *Approximately convex sets in normed spaces*, Third International Conference on Abstract Analysis in Africa, Kruger National Park, South Africa, June, 2000 (invited).
  33. *On the optimality of Elton's  $\ell_1^n$  theorem and a complex version*, Trends in Banach Spaces and Operator Theory, University of Memphis, October, 2001 (invited).
  34. *Convergence of some greedy algorithms in Banach spaces*, Special Session on 'Banach spaces and their Applications', American Mathematical Society Regional Meeting, Atlanta, March, 2002 (invited).
  35. *Bases for which the greedy algorithm works*, Conference on 'Banach Spaces', Pacific Institute of Mathematical Sciences, Vancouver, August, 2002 (invited).
  36. *Greedy convergence in Banach spaces*, Conference on 'Banach Spaces and Applications', University of Memphis, October 17, 2003.
  37. *Approximately Convex Functions and Fixed Points*, Special Session on Applications of Fixed Point Theory, Annual Meeting of the American Mathematical Society, Phoenix, Arizona, January 8, 2004 (invited).
  38. *Greedy convergence in Banach spaces*, Special Session on Infinite-dimensional Banach space theory, American Mathematical Society Sectional Meeting, Athens, Ohio, March 26, 2004 (invited).
  39. *Lattice Structures and Spreading Models*, Summer Informal Regional Functional Analysis Seminar, Texas A & M University, August 5, 2005.
  40. *Lattice Structures and Spreading Models*, Special Session on Interdisciplinary Research involving Analysis and Logic, Annual Meeting of the American Mathematical Society, San Antonio, January 13, 2006 (invited).
  41. *Coefficient Quantization in Banach spaces*, Conference on 'Banach spaces and their Applications in Analysis', Miami University (Ohio), May 23, 2006 (50 minute plenary address).
  42. *Coefficient Quantization in Banach Spaces*, Concentration Week on 'Frames, Banach Spaces, and Signal Processing', August 7, 2006 (50 minute plenary address).

#### SEMINARS AND COLLOQUIA

1. *Embedding complex cubes in Banach spaces*, Cambridge University Analysis Seminar, Lent Term 1982.
2. *J-convexifying operators on Banach spaces*, Cambridge University Analysis Seminar, Lent Term 1983.
3. *Almost Hilbertian subspaces of quotient spaces*, Cambridge University Analysis Seminar, Lent Term 1983.
4. *The cotype constant and large Euclidean subspaces of normed spaces*, Cambridge University Analysis Seminar, Easter Term 1984.
5. *Large Euclidean subspaces of normed spaces* (two talks), University of Missouri-Columbia Modern Analysis Seminar, Fall 1984.

6. *Complemented Hilbertian subspaces of uniformly convex spaces*, University Of Missouri-Columbia Modern Analysis Seminar, Fall 1984.
7. *Almost sure convergence of martingales*, University of Missouri-Columbia Modern Analysis Seminar, Spring 1985.
8. *On the essential norm of an operator and its adjoint*, University of Missouri-Columbia Modern Analysis Seminar, Spring 1985.
9. *Euclidean decompositions of Banach spaces*, Colloquium, University of Missouri-Columbia, Spring 1985.
10. *Almost sure convergence of martingales in uniformly convex spaces* (three talks), University of Texas Banach Space Theory Seminar, Fall 1985.
11. *Almost sure convergence of martingales in uniformly convex spaces*, Texas A&M University Functional Analysis Seminar, December 1985.
12. *Geometry of Lorentz spaces via interpolation* (two talks), Kent State University Analysis Seminar, Spring 1986.
13. *Euclidean decompositions of Banach spaces*, Colloquium, University of South Carolina, February 1986.
14. *Euclidean decompositions of Banach spaces*, Colloquium, Syracuse University, February 1986.
15. *Independent random variables in rearrangement-invariant spaces*, University of Texas Banach Space Theory Seminar, Fall 1986.
16. *A short proof of Johnson's Uniqueness of Norm Theorem (after T. J. Ransford)*, University of Texas Banach Space Theory Seminar, Spring 1987.
17. *A short proof of Johnson's Uniqueness of Norm Theorem (after T. J. Ransford)*, University of South Carolina Functional Analysis Seminar, Fall 1987.
18. *A scale of linear spaces related to the  $L_p$  scale*, Colloquium, The Citadel, Spring 1988.
19. *A theorem of Radon-Riesz type for the Lorentz spaces  $L_{p,1}(\mu)$* , University of Paris Functional Analysis Seminar, January 1989.
20. *A theorem of Radon-Riesz type for the Lorentz spaces  $L_{p,1}(\mu)$* , Colloquium, Emory University, Spring 1989.
21. *Approximation of zonoids by zonotopes (series of five talks)*, University of South Carolina Functional Analysis Seminar, Spring 1990.
22. *On the Bishop-Phelps Theorem (two talks)*, University of South Carolina Functional Analysis Seminar, Fall 1991.
23. *The distribution of vector-valued Rademacher series*, National Science Foundation Workshop in Linear Analysis and Probability, Texas A&M University, August 1993.
24. *Banach spaces which admit a norm with the uniform Kadec-Klee property*, University of Texas Banach Space Theory Seminar, September 1993.
25. *The Fourier transform of order statistics with applications to Lorentz spaces*, Texas A&M University Linear Analysis Seminar, December 1993.

26. *Lorentz spaces which are isometric to subspaces of  $L_q$*  (two talks), Bowling Green State University Analysis Seminar, January 1994.
27. *Recent Advances in Banach Space Theory*, Colloquium, The University of Pittsburgh, February 1994.
28. *Recent Advances in Banach Space Theory*, Colloquium, Miami University, March 1994.
29. *Recent Advances in Banach Space Theory*, Colloquium, Bowling Green State University, March 1994.
30. *Recent Advances in Banach Space Theory*, Colloquium, University of Texas at El Paso, April 1994.
31. *Banach spaces which admit a norm with the uniform Kadec-Klee property*, University of Texas at El Paso Analysis Seminar, April 1994.
32. *Scalar convergence in measure and scalar almost everywhere convergence in  $L_1(X)$* , Bowling Green State University Analysis Seminar, April 1994.
33. *The distribution of vector-valued Rademacher series*, Laval University Analysis Seminar, Quebec City (Canada), October 1994.
34. *Hilbert space is arbitrarily distortable (after Odell and Schlumprecht)*, series of six talks, University of South Carolina Functional Analysis Seminar, Fall 1995.
35. *Existence of hyper-invariant subspaces for compact operators (after P. Enflo)*, University of South Carolina Functional Analysis Seminar, Fall 1996.
36. *Approximate isometries on finite-dimensional normed spaces* (two talks), University of South Carolina Functional Analysis Seminar, Fall 1997.
37. *Extremal approximately convex sets*, Colloquium, University of Pittsburgh, March 1999.
38. *The Banach-Mazur distance to the cross-polytope*, series of eight talks, University of South Carolina Functional Analysis Seminar, Fall 1999.
39. *A greedy property of the Haar system*, IMI Seminar, Fall 2000.
40. *Greedy Algorithms and Thresholding I*, Functional Analysis Seminar, University of Texas at Austin, October 2001.
41. *Greedy Algorithms and Thresholding II*, Functional Analysis Seminar, University of Texas at Austin, October 2001.
42. *Bases for which the greedy algorithm works*, Analysis Seminar, University of Illinois at Urbana-Champaign, April, 2002.
43. *Bases for which the greedy algorithm works*, Linear Analysis Seminar, Texas A&M University, April, 2002.
44. *Existence of almost greedy bases in Banach spaces*, series of four talks, Greedy Algorithms Seminar, University of South Carolina, Spring 2003.
45. *The spectrum of a hypercyclic operator meets the unit circle*, Analysis Seminar, University of South Carolina, October 10, 2003.

46. *Convergence of a greedy algorithm in Bergman spaces* (series of two seminar talks), Nonlinear Approximation Seminar, University of South Carolina, Fall 2004.
47. *On the set of spreading models of a Banach space*, Analysis Seminar, University of South Carolina, Spring 2005.
48. *Coefficient Quantization in Banach spaces*, Analysis Seminar, Centre for Mathematical Sciences, Cambridge University, June 14, 2006 (invited).
49. *On asymptotic  $\ell_p$  spaces and minimality*, Analysis Seminar, University of South Carolina, September 8, 2006.