VITA

MANFRED STOLL

November 2008

Department of Mathematics
University of South Carolina
Columbia, SC 29208
E-Mail: stollmath.sc.edu

Phone: (803) 777–8133 (office)
(803) 791–7189 (home)

PERSONAL DATA

Date/place of birth: August 24, 1944; Calw, Germany

Citizenship: U.S.

Marital Status: Married, three children.

Education:

Ph.D.	Pennsylvania State University, 1971 Dissertation: Hardy type spaces of harmonic functions on symmetric spaces of noncompact type Advisor: Kyong T. Hahn
M.A.	Pennsylvania State University, 1968
B.S.	State University of New York at Albany, 1967 Major: Mathematics; Minor: Physics and German

Professional Experience:

Professor	University of South Carolina	1985 – present
Program Officer (Math & Physics)	Science Foundation of Ireland	May 16, 2007 - Aug. 15, 2007
Chair	Dept. of Mathematics, USC	July 1, 2001 – August 15, 2006
Undergraduate Director	University of South Carolina	January 2000 – June 30, 2001
Graduate Director	University of South Carolina	July 1980 – June 1989
Assistant Chair	University of South Carolina	July 1979 – Dec. 1982
Associate Professor	University of South Carolina	1976 – 1984
Assistant Professor	University of South Carolina	1971 – 1976

Professional Membership: American Mathematical Society

Foreign Languages: German - read and speak fluently; French - read only.

Research Interests: Function Theory, Potential Theory, Several Complex Variables. Research interests include: The study of holomorphic, harmonic, and plurisubharmonic functions of one and several complex variables; H^p spaces, Bergman spaces, Dirichlet spaces, and other spaces of harmonic and holomorphic functions of one and several complex variables; boundary behavior of harmonic functions, subharmonic functions, and Green potentials in domains in $\mathbb{R}^n$ and $\mathbb{C}^n$; harmonic function theory on real and complex hyperbolic space.

SCHOLARLY AND PROFESSIONAL ACTIVITIES

Refereed Publications:

(1) *Integral formula for pluriharmonic functions on bounded symmetric domains*, Duke Math. J., Vol. 41 (1974), 393–403.

(2) *Properties of the space $\tilde{h}^p$, $(0 < p \leq 1)$ of harmonic functions on the unit disc*, Archiv der Math., Vol. 25 (1974), 613–618.

(3) *Hardy-type spaces of harmonic functions on symmetric spaces of noncompact type*, J. Reine Angew. Math., Vol. 271 (1974), 63–76.

(4) *The space N_* of holomorphic functions on bounded symmetric domains*, Ann. Pol. Math., Vol. XXXII (1976), 95–110.

(5) (with J.W. Roberts) *Prime and principal ideals in the algebra N^+*, Archiv der Math., Vol. 27 (1976), 387–393.

(6) Correction to the paper *Prime and principal ideals in the algebra N^+*, Archive der Math., Vol. 30 (1978).

(7) *A characterization of $F^+ \cap N$*, Proc. Amer. Math. Soc., Vol. 57 (1976), 97–98.

(8) *Harmonic majorants for plurisubharmonic functions on bounded symmetric domains with applications to the spaces H_ϕ and N^**, J. Reine Angew. Math., Vol. 282 (1976), 80–87.

(9) (with J. W. Roberts) *Composition operators on F^+*, Studia Math., Vol. LVII (1976), 217–228.

(10) *Mean value theorems for harmonic and holomorphic functions on bounded symmetric domains*, J. Reine Angew. Math., Vol. 290 (1977), 191–198.

(11) *Mean growth and Taylor coefficients of some algebras of analytic functions*, Ann. Pol. Math., Vol. XXXV (1977), 139–158.

(12) *Invertible and weakly invertible singular inner functions in the Bergman space*, Archive der Math., Vol. 31 (1978), 501–508.

(13) *Radial limits of the Poisson kernel on the classical Cartan domains*, Ann. Pol. Math., Vol. XXXVIII (1979), 207–216.

(14) *On the rate of growth of the means M_p of holomorphic and pluriharmonic functions on the ball*, J. Math. Analysis & Appl., Vol. 92 (1983), 109–127.

(15) (with W. Nestlerode) *Radial limits of n-subharmonic functions in the polydisc*, Trans. Amer. Math. Soc., vol 279 (1983), 691–703.

(16) *Boundary limits of subharmonic functions in the disc*, Proc. Amer. Math. Soc., Vol. 93 (1985), 567–568.

(17) *Boundary limits of Green potentials in the unit disc*, Archiv der Math., Vol. 44 (1985), 451–455.

(18) *Mean growth and Fourier coefficients of some classes of holomorphic functions on bounded symmetric domains*, Ann. Pol. Math., Vol. XLV (1985), 161–183.

(19) (with C. Bennett) *Derivatives of analytic functions and bounded mean oscillation*, Archiv der Math., Vol. 47 (1986), 438–442.

(20) (with K.T. Hahn) *Boundary limits of potentials on the ball in $\mathbb{C}^n$*, Complex Variables, Vol. 9 (1988), 359–371.

(21) *Rate of growth of p'th means of invariant potentials in the unit ball of $\mathbb{C}^n$*, J. Math. Analysis & Appl., Vol. 143 (1989), 480–499.

(22) (with S.H. Liu) *Projections on spaces of holomorphic functions on certain domains in $\mathbb{C}^2$*, Complex Variables, Vol. 18 (1991), 1–11.

(23) *Uniform limits of Green potentials in the unit disc*, Archiv der Math., Vol. 56 (1991), 58–67.

(24) *Rate of growth of p'th means of invariant potentials in the unit ball of $\mathbb{C}^n$, II*, J. Math. Analysis & Appl., Vol. 165 (1992), 374–398.

(25) *Admissible limits of invariant potentials in the unit ball of $\mathbb{C}^n$*, Complex Variables, Vol. 18 (1992), 167–185.

(26) *Composition of potentials with inner functions*, Math. Scand., Vol. 71 (1992), 122–132.

(27) *A characterization of Hardy-Orlicz spaces on planar domains*, Proc. Amer. Math. Soc., Vol. 117 (1993), 1031–1038.

(28) *Tangential boundary limits of invariant potentials in the unit ball of $\mathbb{C}^n$*, J. Math. Analysis & Appl.,Vol. 177 (1993), 553–571.

(29) *A characterization of Hardy spaces on the unit ball of $\mathbb{C}^n$*, J. London Math. Soc., Vol. 48 (1993), 126–136.

(30) *Non-isotropic Hausdorff capacity of exceptional sets of invariant potentials*, Potential Analysis, vol 4 (1995), 141–155.

(31) (with K.T. Hahn and E.H. Youssfi) *Invariant potentials and tangential boundary behavior of $\mathcal{M}$-subharmonic functions*, Complex Variables, vol 28 (1995), 67–96.

(32) *Bergman–Shilov boundary,* Encyclopedia of Mathematics, Kluwer Academic Publishers (1997).

(33) *Boundary limits and non-integrability of $\mathcal{M}$-subharmonic functions in the unit ball of $\mathbb{C}^n$*, Trans. Amer. Math. Soc., vol. 349 (1997), 3773–3785.

(34) *Weighted tangential boundary limits of subharmonic functions on domains in $\mathbb{R}^n$,* Math. Scand., vol 83 (1998), 300–308.

(35) *Holomorphic and $\mathcal{M}$–harmonic functions with finite Dirichlet integral*, Ill. J. Math., vol. 45 (2001), 139–162.

(36) *On the integrability of eigenfunctions of the Laplace–Beltrami operator*, Potential Analysis, vol. 16 (2002), 205–220 .

(37) *Harmonic majorants for eigenfunctions of the Laplacian with finite Dirichlet integrals*, J. Math. Analysis & Appl., vol. 274 (2002), 788–811.

(38) *Dirichlet and Bergman spaces of holomorphic functions*, Monatshefte für Mathematik, vol. 144 (2005), 131–139.

(39) *The Littlewood-Paley inequalities for Hardy-Orlicz spaces of harmonic functions on domains in $\mathbb{R}^n$, Proceedings of IWPT 2004*, Advanced Studies in Pure Mathematics, 44 (2006), 363–376.

(40) (with P. Ryan) *Hardy-Sobolev spaces and Banach algebras on the unit ball in $\mathbb{C}^n$*, Complex Variables and Elliptic Equations, vol. 53 (2008), 565–584.

(41) *Weighted Dirichlet spaces of harmonic functions on the real hyperbolic ball* (in preparation).

Conference Proceedings (Not Refereed)

(1) Harmonic majorants for eigenfunctions of the Laplacian with finite Dirichlet integral, Proc. of the Conference on Potential Theory, Kyoto Sangyo University (2001), 103 – 123.

Monographs and Books:

(1) *Invariant Potential Theory in the Unit Ball of $\mathbb{C}^n$*, London Math. Soc. Lect. Notes, Vol. 199, Cambridge University Press (1994).

(2) **Introduction to Real Analysis**, Addison-Wesley Publ. Co. (1997); Second Edition (2001).

(3) *Harmonic Function Theory on Real Hyperbolic Space* (in preparation).

Invited Research Conferences, Colloquia, and Talks (1990 – present):

(1) Southeastern Analysis Conference, University of North Carolina at Charlotte, April 12 - 14, 1991; "A characterization of Hardy-Orlicz spaces on planar domains."

(2) International Conference on Potential Theory, University of Utrecht, The Netherlands, August 17 - 23, 1991; "Admissible limits of invariant potentials in the unit ball of $\mathbb{C}^n$".

(3) Research Seminar Talk: Penn State University, November 1991, "Tangential limits of invariant potentials".

(4) NSF-CBMS Regional Conference in Several Complex Variables, George Mason University, May 26 - 31, 1992.

(5) Colloquium, University of West Virginia, "Applications of potential theory to H^p spaces", March 8, 1993.

(6) NATO Advanced Study Institute on Complex Potential Theory, University of Montreal, July 26 to August 6, 1993

(7) Special Session on Potential Theory, AMS Regional Meeting, University of Montreal, September 26–28, 1997, "Boundary limits of subharmonic functions on domains in R^n."

(8) Special Session on Operator Theory and Holomorphic Spaces, AMS Regional Meeting, Wake Forest University, October 9–10, 1998. "Dirichlet spaces of $\mathcal{M}$-harmonic functions on the unit ball in $\mathbb{C}^n$.

(9) Colloquium, McGill University, Montreal, October 4, 1999. "Dirchlet spaces of holomorphic functions on the unit ball in C^n".

(10) Colloquium, LaValle University, Quebec, October, 22, 1999. "Dirchlet spaces of holomorphic functions on the unit ball in C^n".

(11) Special Session on Analysis, Quebec Mathematical Society, Sherbrooke, Quebec, October 31, 1999. "On a theorem of Hardy and Littlewood".

(12) NATO Advanced Study Institute on Approximation, Complex Analysis, and Potential Theory, University of Montreal, July 3 – 14, 2000. Invited hour talk: "Harmonic function theory on real hyperbolic space."

(13) Colloquium, Osaka City University, Osaka, Japan, Nov. 20, 2001. "Harmonic function theory on real hyperbolic space."

(14) Seminar on Real and Complex Analysis, Hiroshima University, Hiroshima, Japan, Nov. 23, 24 , 2001. Two invited talks:
    (i) "Dirichlet spaces of holomorphic functions on the unit ball in C^n,
    (ii) "Harmonic function theory on real hyperbolic space."

(15) Colloquium, Shimane University, Matsue, Japan, Nov. 26, 2001. "Dirichlet spaces of holomorphic functions on the unit ball in C^n."

(16) Conference on Potential Theory, Kyoto Sangyo University, Kyoto, Japan, Nov. 28–30, 2001. Invited Hour Address: *Harmonic majorants for eigenfunctions of the Laplacian with finite Dirichlet Integral.*

(17) IWPT 2004, August 23 - August 28, 2004, Shimane University, Matsue, Japan. Invited talk: *Generalizations of the Littlewood-Paley inequalities to domains in $\mathbb{R}^n$.*

(18) Colloque sur la theorie du potential, May 15 - May 19, 2006, McGill University, Montreal, Canada. Invited talk: *Hardy–Sobolev spaces and Banach algebras on the unit ball of $\mathbb{C}^n$* (joint with Pamela Ryan) presented by Pamela Ryan.

(19) Analysis Seminar, September 19, 2006, University of Montreal. *Dirichlet spaces and Inner functions on the unit ball.*

(20) Analysis Seminar, November 14, 2006, University of Montreal, *A_p weights and weighted Hardy spaces on the unit ball in $\mathbb{C}^n$*

(21) Analysis Seminar, March 12, 2007, University of Barcelona *Hardy-Sobolev Spaces and algebras of holomorphic functions in the unit ball of $\mathbb{C}^n$*

Other Invited Conferences and Panel Sessions:

(1) Sixteenth Annual Mathematical Sciences Department Chairs Colloquium, November 9 – 10, 2001, Washington, DC

(2) Seventeenth Annual Mathematical Sciences Department Chairs Colloquium, November 8 – 9, 2002, Washington, DC

(3) AMS-MER Worshop on Excellence in Undergraduate Mathematics: Mathematics for Teachers and Mathematics for Teaching, March 13 – 16, 2003, Ithaca College, Ithaca, NY

(4) NSF/DMS Conference on Funding Opportunities, May 9 – 10, 2003, Arlington, VA

(5) AMS Committee on Education, October 24 – 25, 2003, Washington, DC

(6) AMS Committee on Science Policy Forum, April 1 – 3, 2004, Washington, DC

(7) Dialog 2004: DMS and the Mathematical Science Community, April 30 – May 1, 2004, Washington, DC

(8) AMS Committee on Education Meeting, October 22 – 23, 2004, Washington, DC

(9) Workshop on Majors and the Transition to Graduate Work, August 12 – 13, 2005, Washington, DC

(10) Science Foundation of Ireland (SFI), Mathematics Preliminary Proposals Panel Review, October 20 – 21, 2005, Dublin, Ireland

(11) SFI, Mathematics Proposals Panel Review, March 6 & 7, 2006, Dublin, Ireland

(12) SFI, Mathematics Pre-Proposals Panel Review (Chair of Panel), November 8 & 9, 2007, Dublin, Ireland

(13) SFI Mathematics Proposals Panel Review (Chair of Panel), March 6 & 7, 2008, Dublin, Ireland

Other Scholarly Activities:

(1) **Referee for the following Journals:**
 (i)   Archive der Math, Archiv for Math.
 (ii)   Bulletin Brazillian Math. Sco.
 (iii) Canadian Mathematical Bulletin
 (iv)   Colloquium Math.
 (v)   Complex Variable
 (vi)   Illinois J. Math.
 (vii) J. Math. Analysis & Appl.
 (viii) London Mathematical Soceity
 (iX)   Math. Nachrichten
 (x)   Math. Scand.
 (xi)   Memoirs Amer. Math. Soc.
 (xii) Monatshefte
 (xiii) Nagoya Math. J.
 (xiv) Proc. Endiborough Math. Soc.
 (xv)   Proc. Amer.Math.Soc.
 (xvi) Rocky Mountain J. of Math.
 (xvii) Studia Math.
 (xviii) Publ. Matemátiques.
 (xix) International Journal of Mathematics and Mathematical Sciences.

(2) Referee for NSF and German Israeli Foundation.

(3) Reviewer for Mathematical Reviews and Zentralblatt.

(4) External Reviewer of Ph. D. Dissertation, Fall 1999, University of Montreal

(5) External Reviewer of Ph.D. Dissertation, Fall 2007, University of Mexico.

(6) Book and Monograph Reviews:
 (i)   Berenstein & Gay, *Complex Variables. An Introduction*, Springer–Verlag. Mathematical Reviews (1991)
 (ii) Axler, Bourdon, & Ramey, *Harmonic Function Theory*, Springer–Verlag. Zentralblatt (1993)
 (iii) Shapiro, Joel, *Composition Operators and Classical Function Theory*, Springer–Varlag. Zentralblatt (1994)
 (iv) Berenstein & Gay, *Complex Analysis and Special Topics in Harmonic Analysis*, Springer–Verlag. Mathematical Reviews (1996)
 (v)   Klein, Udo, *Hardy spaces of higher order with emphasis on H_1^1*, Travaux Mathematiques. Zentralblatt (1998)

Doctoral Student Supervision:

(1) T.R. Chang, Ph.D., August 1978, *Invertible and weakly invertible functions in spaces of analytic functions*, (Bell Labs in Chicago).

(2) Ewa Wojcicka, Ph.D., August 1985, *Functions of bounded characteristic in multiply connected domains*, (Associate Professor, College of Charleston, deceased).

(3) S.H. Liu, Ph.D., May 1991, *Boundary limits of generalized Green potentials on the unit ball in $\mathbb{R}^n$*, (Assistant Professor, National Yunlin Inst. of Technology).

(4) Shiying Zhao (co-advisor), Ph.D., August 1991, *Boundary behavior of subharmonic functions on NTA domains*, (Associate Professor, University of St. Louis, Missouri).

(5) Kuzman Adzievski, Ph.D., August 1995, *Boundary behavior of Pluri-Green potentials in the unit ball of $\mathbb{C}^n$*, (Associate Professor, S.C. State University).

(6) Leszek Rzepecki, Ph.D., August 1995, *Boundary behavior of non-isotropic potentials in the unit ball of $\mathbb{C}^n$*, (Assistant Professor, Allice Loyd College, Pippa Passes, Kentucky).

(7) Pamela Ryan, Ph.D., May 2004, *Hardy-Sobolev Spaces and Banach Algebras on the Unit Ball of $\mathbb{C}^n$*, (Assistant Professor, Lander University, Greenwood, SC).

(8) Matthew Gamel, current doctoral student.

Master's Student Supervision:

(1) Joan Howell, M.S., May 1988, *Subharmonic functions on the unit ball in $\mathbb{R}^n$*, (Instructor, Midlands Technical College).

(2) Craig Winkler, M.S., May 1988, *The Radon transform and computed tomography.*

(3) Sherry Leschinsky, M.S., May 1999, *Hardy Spaces of Higher Order*, (Adjunct Instructor, University of South Carolina).

Undergraduate Student Supervision (since 2000)

(1) Katherine Heller, Honors College Senior Thesis, May 2004 (Graduate Student at University of Virginia)