

Biographical Sketch of **Charles N. Moore**

(i) Professional Preparation

University of California, Los Angeles, Ph.D., Mathematics, 1986.

Washington University, Visiting Postdoctoral professor/ NSF postdoctoral fellow, 1986-1990

(ii) Appointments

1994-present, Associate Professor, Kansas State University

1997- 1998, Visiting Professor, University College, Galway, Ireland

1990 - 1994, Assistant Professor, Kansas State University

1986 - 1990, Visiting Assistant Professor, Washington University, National Science Foundation Postdoctoral Fellow in Mathematics

(iii) Selected publications

Closely Related to the Proposal:

1. *An analogue for harmonic functions of Kolmogorov's law of the iterated logarithm*, with Bañuelos, R., and Klemes, I., *Duke J. Math.* 57 (1988), 37-68.
2. *Sharp estimates for the non-tangential maximal function and the Lusin area function on Lipschitz domains*, with Bañuelos, R., *Trans. Amer. Math. Soc.* 312 (1989), 641-662.
3. *The lower bound in the law of the iterated logarithm for harmonic functions*, with Bañuelos, R., and Klemes, I. *Duke Math. J.* 60 (1990), 1-27.
4. *Distribution function inequalities for the density of the area integral*, with Bañuelos, R., *Ann. Inst. Fourier* 41 (1991), 137-171.
5. *Probabilistic behavior of harmonic functions*, with Bañuelos, R., Birkhäuser Verlag, Basel, 1999.

Additional Selected Publications:

6. *The corona theorem for domains whose boundary lies in a smooth curve*, *Proc. Amer. Math. Soc.* 100 (1987), 266-270.
7. *Some inequalities for the density of the area integral*, *Partial Differential Equations with minimal smoothness and applications*, IMA volumes in Mathematics and its applications, Springer-Verlag, 1992, pp. 189-198.
8. *Certain lacunary cosine series are recurrent*, with Grubb, D.J., *Studia Math.* 108 (1) (1994), 21-23.
9. *A variant of Hörmander's condition for singular integrals*, with Grubb, D.J., *Colloq. Math.* 73 (2) (1997), 165-172.
10. *The Hele-Shaw problem as a "Mesa" limit of Stefan problems: Existence, uniqueness, and regularity of the free boundary*, with Blank, I. and Korten, M., submitted.

(iv) Synergistic Activities

Conference organization: Co-organizer, Conference on Probability and Harmonic Analysis, March 1992, Kansas State University; Co-organizer, Special Session on Harmonic Analysis and Probability, A.M.S. meeting #891, March 1994, Manhattan, Kansas; Organizer, Karl Stromberg Memorial Conference, February 1997, Manhattan, Kansas; Co-organizer, Prairie Analysis Seminar, October 2001, Manhattan, Kansas, October 2002, Lawrence, Kansas, October 2003, Manhattan, Kansas; Co-organizer, Special Session on Differential Equations, A.M.S. meeting #1000, October 2004, Albuquerque, New Mexico

Director of KSU mathematics department Academic Excellence Workshops, 2000- present. These are special enrichment courses which give students a solid mathematics background necessary to pursue a major in the sciences, mathematics or engineering. The recruiting for the courses is especially targeted toward students from traditionally under-represented groups who often experience isolation in a large university or do not thrive on the competition frequently present in mathematics and science courses. The workshops emphasize collaborative learning and enable students to form an academic peer group.

I developed and still direct the KSU mathematics department's actuarial science program. This consists of two courses, taught in the mathematics department, designed to prepare students for examinations given by the Society of Actuaries and the Casualty Actuary Society, as well as a carefully chosen curriculum of many other courses taught by other departments. I participate in the Society of Actuaries Academic Liaison program which pairs our department with working actuaries who lecture and advise our students on the profession.

I have been the Associate Head of the mathematics department since 2000.

Graduate exit interviews: I developed a set of interview questions to use to evaluate our graduate program and I personally conduct many of the interviews. The information gathered has been useful in making changes to our program; I serve on our department's graduate committee and constantly work to improve our graduate program.

(v) Collaborators and other affiliations

- (a) Collaborators and Co-Editors: *Rodrigo Bañuelos*, Purdue University, *Marianne Kortzen*, Kansas State University, *Ivan Blank*, Worcester Polytechnic Institute
- (b) Graduate and Post Doctoral Advisors: *Sun Yung Alice Chang*, Princeton University, Thesis Advisor; *Albert Baernstein*, Washington University, Postdoctoral Advisor
- (c) Advising: *Sarah Cook*, Ph.D student, 1998, currently at Washburn University, Topeka

I have advised only one student as major professor but have served on Ph.D. committees of 11 other students. I have directed the Master's dissertations of 5 students and undergraduate dissertations for two students.