Biographical Sketch for Daniel B. Dix

(i) Professional Preparation

University of South Alabama	Mathematics	B.S., 1980
University of Chicago	Mathematics	S.M., 1984
University of Chicago	Mathematics	Ph.D., 1988

(ii) Appointments

Associate Professor, University of South Carolina, 1997–present

Assistant Professor, University of South Carolina, 1991–1997

Postdoctoral Scholar, Pennsylvania State University, 1989–1991

Postdoctoral Member, Institute for Mathematics and its Applications, 1988–1989

(iii) Publications

1. Five Most Relevant Publications

- Daniel B. Dix, *Sharp Large-Time Asymptotics of the Correlation Integral in the Suspended Flow over a Hyperbolic Toral Automorphism*, preprint, 2007.

- Daniel B. Dix, *Polyspherical Coordinates on Orbit Spaces with Applications to Biomolecular Conformation*, Acta Appl. Math., **90**, (2006), 247–306.

- Daniel B. Dix, *Large-time Behavior of Solutions of Burgers' Equation*, Proc. Roy. Soc. Edinburgh, **132A** (2002), 843–878.

- Daniel B. Dix, *Large-Time Behavior of Solutions of Linear Dispersive Equations*, Lecture Notes in Mathematics, **1668**, (1997), 203 pages.

- Daniel B. Dix, *The Dissipation of Nonlinear Dispersive Waves: The Case of Asymptotically Weak Nonlinearity* , Comm. P.D.E. **17** (1992), 1665–1693.

2. Other Significant Publications

- Daniel B. Dix, *Temporal Asymptotic Behavior of Solutions of the Benjamin-Ono-Burgers' Equation*, J. Diff. Eq. **90** (1991), 238–287.

- D. B. Dix, and W. McKinney *Computations of Self-similar Blow-up Solutions of the Generalized Korteweg-de Vries Equation*, Differential and Integral Equations **11** (1998), 679–723.

- Daniel B. Dix, *Nonuniqueness and Uniqueness in the Initial-Value Problem for Burgers' Equation* , SIAM J. Math. Anal. **27** (1996), 708–724.

- Daniel B. Dix, *Applications of Clifford Analysis to Inverse Scattering for the Linear Hierarchy in Several Space Dimensions*, **Clifford Algebras in Analysis and Related Topics**, John Ryan (ed), CRC Press, (1995), 261–284.
- T. Felder, B. Dunlap, D. Dix, T. Spencer, *Difference in Natural Ligand and Fluoropyrimidine Binding to Human Thymidylate Synthase Identified by Transient-State Spectroscopic and Continuous Variation Methods*, Biochimica et Biophysica Acta–Protein Structure and Molecular Enzymology, **1597**, May 20 (2002), 149–156.

(iv) Synergistic Activities

Developed with the help of graphics programmer Scott Johnson with funding from the Industrial Mathematics Institute at the University of South Carolina a computer program, IMIMOL, for building and manipulating the geometry of macromolecules. It is a tool for research and teaching. With the help of undergraduate Matthew Hielsberg, the program VMD was modified to allow easy manipulation and visualization of molecular geometries via CAVE technology.

(v) Collaborators and Other Affiliations

(a) Collaborators (there are no Co-Editors)

William McKinney, formerly at North Carolina State University (mathematics)
Trent Spencer, Emory University (a cancer biologist)
George Khushf, University of South Carolina (philosophy)
Robert Best, University of South Carolina School of Medicine (a geneticist)

(b) Graduate and Postdoctoral Advisors

Charles Amick, University of Chicago, Ph.D. thesis advisor (deceased)
Jerry Bona, University of Texas at Austin, postdoctoral advisor
Peter Wolynes, University of California San Diego, sabbatical sponsor

(c) Thesis Advisor (5 total) and Postgraduate-Scholar Sponsor (none)

Mark Whisler, University of South Carolina, Masters Thesis advisor
Brian Carnes, University of South Carolina, Masters Thesis advisor
Haruna Katayama, University of South Carolina, Masters Thesis advisor
Jialiang Wu, University of South Carolina, Masters Thesis advisor
Lanjia Lin, University of South Carolina, Masters Thesis advisor
Amanda Gantt, University of South Carolina, Masters Thesis advisor