

Montana State University Faculty Vita
Department of Mathematical Sciences

John R. Lund
Professor of Mathematics

EDUCATION:

Ph.D., Mathematics, University of Utah, 1978
M.S., Mathematics, University of Utah, 1973
B.S., Mathematics, University of Tennessee, 1971

EXPERIENCE:

1993–	Head, Department of Mathematical Sciences, Montana State University
1989–1993	Professor, Department of Mathematical Sciences, Montana State University
Sept. 1991	Visiting Professor, Rogaland University, Stavanger, Norway
May 1991	Visiting Professor, Royal Institute of Technology, Stockholm, Sweden
Fall 1987,89	Visiting Professor at Texas Tech University, Lubbock, TX
1984–1989	Associate Professor, Department of Mathematical Sciences, Montana State University
1978–1984	Assistant Professor, Department of Mathematical Sciences, Montana State University
1976–1978	Teaching Fellow, University of Utah
1975–1976	Graduate Assistant, University of British Columbia
1971–1975	Teaching Fellow, University of Utah

REFEREED PUBLICATIONS:

1. “A Sinc-Collocation Method for Initial Value Problems,” with T. S. Carlson and J. Dockery, *Mathematics of Computation*, 66:215-235 (January, 1997).
2. “Advection-Diffusion Equations: Temporal Sinc Methods,” *Numerical Methods for Partial Differential Equations*, 11 (1995), pages 399–422, with K. L. Bowers and T. S. Carlson
3. “A Sinc-Galerkin Method for Convection Dominated Transport,” with T. S. Carlson and K. Bowers, *Computation and Control III*, Vol. 15 of the series *Progress in Systems and Control Theory*, Birkhäuser Boston, Inc., 121–139 (1993).

4. “Numerical Simulations: Boundary Feedback Stabilization,” with K. Bowers, Vol. 1 of the *Proceedings of the 31st IEEE Conference on Decision and Control*, IEEE Control Systems Society, 809–814 (1992).
5. “The Sinc-Galerkin Method for Parameter Dependent Self-Adjoint Problems,” with K. M. McArthur, R. C. Smith and K. Bowers, *Applied Mathematics and Computation*, 50(2 & 3):175–202 (August, 1992).
6. “A Fully Sinc-Galerkin Method for Euler-Bernoulli Beam Models,” with R. C. Smith and K. Bowers, *Numerical Methods for Partial Differential Equations*, 8(2):171–202 (March, 1992).

BOOKS:

1. *Sinc Methods for Quadrature and Differential Equations*, SIAM, Philadelphia, 304 pages, 1992 (with K. Bowers). This is an introductory graduate text in the numerical solution of ordinary and partial differential equations using the Galerkin method with the Sinc basis.
2. *Computation and Control I, II, III and IV, Proceedings of the 1988, 1990, 1992 and 1994 Bozeman Conferences on Computation and Control* Volumes 1, 11, 15, 20 in the Birkhäuser series “Progress in Systems and Control Theory”, (with K. Bowers).

Ph.D. DISSERTATIONS DIRECTED:

Timothy Carlson “Sinc Procedures for the Discretization of Convection Diffusion Problems,” 1995

GRANTS AND AWARDS:

1. “Proposal for the ‘Fourth Conference on Computation and Control’,” from the NSF, \$8,000 and MSU Foundation Grant, \$1,000, 1994 (with K. Bowers).

PROFESSIONAL SERVICE:

1. Organized and ran (with C. Martin) an ARO-NASA conference on Exterior Differential Systems and Hybrid Control, hosted by the Montana State University, Texas Tech University and the University of California, Berkeley, from July 24–28, 1995 at Montana State University.
2. Organized and ran (with K. Bowers) the Sixth Conference on Computation and Control, hosted by the MSU Mathematical Sciences Department, August 3–9, 1994. The proceedings are to appear in a special issue of *Mathematical and Computer Modelling*, Pergamon, Elsevier Science Ltd., 1999.
3. Co-Organizer of the 1995 COMIC (Collegiate Mathematics Interface Conference) conference at MSU–Billings, Billings MT. The conference addressed each of the topics enforcement of pre-requisite courses and Calculus reform (lead panelist: D. Hughes Hallett).

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