

Boise State University  
Department of Mathematics  
1910 University Dr.  
Boise, ID 83725-1555

Tel: +1 208 426-4674  
Fax: +1 208 426-1356  
E-mail: wright (at symbol) math.boisestate.edu  
Web: <http://math.boisestate.edu/~wright/>

## EDUCATION

**University of Colorado** – Boulder, Colorado  
Ph.D. in Applied Mathematics, May 2003  
Advisor: Professor Bengt Fornberg  
Dissertation: “Radial Basis Function Interpolation: Numerical and Analytical Developments”

**University of Colorado** – Boulder, Colorado  
M.S. in Applied Mathematics, May 2000

**Westminster College** – Salt Lake City, Utah  
B.S. in Mathematics (*Magna Cum Laude*), May 1997

## PROFESSIONAL EXPERIENCE

- 7/07-           **Assistant Professor** – Boise State University  
7/06-7/07      **NSF-NIGMS Postdoctoral Fellow** – University of Utah  
                  • Formation and Function of Physiological Gels
- 7/06-8/06      **Visiting Scientist, National Center for Atmospheric Research** – Boulder, CO
- 7/03-6/06      **NSF VIGRE Assistant Professor (Lecturer)** – University of Utah
- 9/99–5/03      **NSF VIGRE Graduate Trainee** – University of Colorado, Boulder
- 8/97 – 12/01   **Software Engineer III** – Ionics Instruments, Boulder, Colorado

## PUBLICATIONS<sup>1</sup>

1. B. Fornberg, T.A. Driscoll, G.B. Wright, and R. Charles. *Observations on the behavior of radial basis functions near boundaries*, Comput. Math. Appl. 43 (2002), 473-490.
2. B. Fornberg, G.B. Wright, and E. Larsson. *Some observations regarding interpolants in the limit of flat radial basis functions*, Comput. Math. Appl. 47 (2004), 37-55.
3. B. Fornberg and G.B. Wright. *Stable computation of multiquadric interpolants for all values of the shape parameter*, Comput. Math. Appl. 48 (2004), 853-867.
4. G.B. Wright and B. Fornberg. *Scattered node compact finite difference-type formulas generated from radial basis functions*, J. Comput. Phys. 212 (2006), 99-123.
5. B. Fornberg, E. Larsson, and G.B. Wright. *A new class of oscillatory radial basis functions*, Comput. Math. Appl. 51 (2006), 1209-1222.
6. G.B. Wright and B. Fornberg. *Scattered node mehrstellenverfahren-type formulas generated from radial basis functions*, in Computational Methods, G. Liu, V. Tan, and X. Han, eds., Springer Netherlands, 2006, 1391-1395.
7. O.E. Livne and G.B. Wright. *Fast multilevel evaluation of smooth radial basis function expansions*, ETNA. 23 (2006), 263-287.
8. O.E. Livne and G.B. Wright. *Fast multilevel evaluation of 1-D piecewise smooth radial basis function expansions*, to appear (2007) SIAM Proceedings on Geometric Design and Computing, Phoenix, Arizona 2005 (Refereed Proceedings).

<sup>1</sup> Preprints available for download at <http://math.boisestate.edu/~wright/research/>

9. N. Flyer and G.B. Wright, *Transport schemes on a sphere using radial basis functions*, J. Comp. Phys. 226 (2007), 1059-1084.
10. F.J. Narcowich, J.D. Ward, and G.B. Wright, *Divergence-free RBFs on Surfaces*, J. Fourier Anal. Appl. 13 (2007), 643-663.
11. G.B. Wright, R.D. Guy, and A.L. Fogelson, *An efficient and robust method for simulating two-phase gel dynamics*. SIAM J. Sci. Comput., 30 (2008), 2535-2565.
12. E.J. Fuselier, F.J. Narcowich, J.D. Ward, and G.B. Wright, *Error and stability estimates for surface-divergence free RBF interpolants on the sphere*. To appear (2008).
13. J. Du, A.L. Fogelson, and G.B. Wright, *A parallel computational method for simulating two-phase gel dynamics*. To appear (2008).
14. E.J. Fuselier and G.B. Wright, *Stability and error estimates for vector field interpolation and decomposition on the sphere with RBFs*. Submitted (2008).
15. N. Flyer and G.B. Wright, *A radial basis function shallow water model for the sphere*. Submitted (2008).

## HONORS AND AWARDS

- Co-PI: National Science Foundation grant (NSF-DMS 0540779): Formation and Function of Physiological Gels. Duration: 6/2006-6/2010
- Co-PI: National Science Foundation grant (NSF-ATM 0620090): Collaboration in Mathematical Geosciences: Freedom from Coordinate Systems, and Spectral Accuracy with Local Refinement: Radial Basis Functions for Climate and Space-Weather Prediction. Duration: 9/2006-9/2009
- National Science Foundation/National Institute for General Medical Science Postdoctoral Fellowship, University of Utah (2006-2007)
- Outstanding instructor of mathematics, University of Utah (Fall 2006)
- National Science Foundation VIGRE Postdoctoral Fellowship, University of Utah (2003-2006)
- Outstanding instructor of mathematics, University of Utah (Spring 2005)
- National Science Foundation VIGRE Graduate Traineeship, University of Colorado (1999-2003)
- Graduate School Fellowship, University of Colorado (1999)
- George S. and Dolores Doré Eccles Foundation Scholarship, Westminster College (1993-1997)
- Board of Trustees Scholarship, Westminster College (1993-1997)
- Participant in the IAS/Park City Mathematics Institute (PCMI) summer undergraduate program (1997)
- Outstanding Mathematics and Science Major award, Westminster College (1996-1997)

## TALKS/ POSTERS

- Petascale Computing Workshop: Its Impact on Geophysical Modeling and Simulation, NCAR (May 2008)
- 10<sup>th</sup> Copper Mountain Conference on Iterative Methods, Copper Mountain, CO (April 2008)
- Colloquium in commemoration of Gene H. Golub, Boise State University (February 2008)
- Applied Math Seminar, University of Utah (April 2007)
- SIAM Conference: Mathematical and Computational Issues in the Geosciences (talk), Santa Fe (Mar. 2007)
- Approximation theory seminar, University of Utah (Oct. 2006)
- Colloquium, Dept. of Mathematics, Boise State University, (Feb. 2006)
- SIAM Conference: Geometric Design and Computing (talk), Phoenix (Oct. 2005)
- Colloquium, Dept. of Applied Math, Illinois Institute of Technology (Mar. 2005)
- Colloquium, Dept. of Math and Computer Science, Colorado School of Mines (Feb. 2005)
- First International Conference on Computational Methods (talk), Singapore (Dec. 2004)
- Applied Math Student Seminar, University of Utah (Sept. 2004)
- Graduate Student Seminar, University of Utah (Apr. 2004)
- SAMSI Conference on Multiscale Model Development and Control Design (poster), SAMSI (Jan. 2004)
- Numerical Analysis/Applied Math Seminar, University of Utah (Sept. 2003)

- Fourth Annual VIGRE Symposium (talk), University of Colorado (July 2002)
- Fast Algorithms Seminar, University of Colorado (Nov. 2001)
- Graduate Student Seminar, University of Colorado (Nov. 2000)
- Fast Algorithms Seminar, University of Colorado (May 2000)

### PROFESSIONAL MEMBERSHIP AND SERVICE

- **Member:** Society of Industrial and Applied Mathematics.
- **Referee:** *SIAM Journal of Scientific Computing*, *SIAM Journal of Numerical Analysis*, *Journal of Computational Physics*, *Computers and Mathematics with Applications*, *Computer Methods in Applied Mechanics and Engineering*, *International Journal for Numerical Methods in Fluids*, *Journal of Computational and Applied Mathematics*, *Academic Press*.