

**Brian Laughman**  
**NWRA/CoRA Division**

**Professional Preparation:**

- University of Colorado, Boulder Physics, Ph. D. 2009
- University of Notre Dame Physics, B.S. 2001

**Appointments:**

- Colorado Research Associates (CoRA), research scientist 2009 – present
- Colorado Research Associates (CoRA), graduate student 2003 – 2009
- University of Colorado, Department of Geophysics, graduate student 2002
- University of Notre Dame, Atomic Physics, undergraduate student 2000-2001
- University of Notre Dame, Nuclear Physics, undergraduate student 1999-2000

**Relevant Publications:**

1. Laughman, B., D. C. Fritts, and J. Werne: **Numerical simulation of bore generation and morphology in thermal and Doppler ducts**, *Ann. Geophys., SpreadFEx special issue*, **27**, 511-523, 2009
2. Fechine, J., C. M. Wrasse, H. Takahashi, A. F. Medeiros, P. P. Batista, B. R. Clemesha, L. M. Lima, D. Fritts, B. Laughman, M. J. Taylor, P. D. Pautet, M. G. Mlynczak, and J. M. Russel, 2008: **Mesospheric bore event during SpreadFEx campaign**, *Ann. Geophys., SpreadFEx special issue*, in revision.
3. Fritts, D. C., M. A. Abdu, B. R. Batista, I. S. Batista, P. P. Batista, R. Buriti, B. R. Clemesha, T. Dautermann, E. de Paula, B. J. Fechine, B. Fejer, D. Gobbi, J. Hasse, F. Kamalabadi, B. Laughman, P. P. Lima, H.-L. Liu, A. Medeiros, D. Pautet, D. M. Rigglin, F. Sao Sabbas, J. H. A. Sobral, P. Stamus, H. Takahashi, M. J. Taylor, S. L. Vadas, and C. Wrasse, 2008a: **The Spread F Experiment (SpreadFEx): Program overview and first results**, *Earth Planets Space*, in press.  
<http://www.cora.nwra.com/dave/SpreadFEx/FrittsCPEAoverview.pdf>
4. Laughman, et al., **Comparison of predicted bore evolution by the BDO and Navier-Stokes equations for mesopausal environments**, in preparation.

**Other Publications:**

1. M. C. Pyle, A. Garcia, E. Tatar, J. Cox, B. K. Nayak, S. Triambak, B. Laughman, A. Komives, L. O. Lamm, T. Finnessy, L. D. Knutson and P. A. Voytas, **Re-validation of the isobaric mass multiplet equation**, *Phys. Rev. Lett.* **88**, 122501-1 (2002)
2. V. Gerginov, B. Laughman, D. DiBerardino, R. J. Rafac, S. T. Ruggiero, C. E. Tanner, **Diode Lasers for Fast-beam Laser Experiments**, *Optics Communications* **187**(2001) 219-230, 1 Jan. 2001

**Synergistic Activities:**

- Added specific modeling capabilities to the numerical code used by the CoRA group
- Presented a cross-disciplinary bore talk at the tri-group seminar in November, 2007

**Collaborators and Co-Editors:**

- Dave Fritts, NWRA/CoRA
- Joe Werne, NWRA/CoRA

**Graduate Advisors:**

- Dave Fritts, NWRA/CoRA
- John Wahr, University of Colorado

**Thesis Advisor:**

- Dave Fritts, NWRA/CoRA