



# Bruce Reagan Miller

## Curriculum Vitae

### Research Interests

Symbolic computation & Semantic Web in support of Science and Technology; Document processing for semantic content; Mathematical Knowledge Management.

### Higher Education

- 1978–1983 **Ph. D. (Physics)**, *University of Texas*, Austin, TX.  
1976–1978 **M. A. (Physics)**, *University of Texas*, Austin, TX.  
1972–1976 **B. S. (Physics)**, *University of Texas*, Austin, TX.

### Employment History

- 1985– **Physicist**, *National Institute of Standards and Technology*, Gaithersburg, MD.  
1984–1985 **NRC/NAS Postdoc.**, *National Bureau of Standards*, Gaithersburg, MD.

### Awards

- 2014 **Outstanding Contribution to ITL.**  
*“For technical excellence in development of the computational infrastructure underlying the NIST Digital Library of Mathematical Functions.”*
- 2011 **Gold Medal of the Department of Commerce.**  
*“For development of the NIST Digital Library of Mathematical Functions, an unprecedented reference on the special functions of applied mathematics.”*
- 1989 **Silver Medal of the Department of Commerce.**  
*“For the development of symbolic processing software for fast and accurate solutions of nonlinear dynamics problems, notably in mathematical astronomy. ”*

### Projects & Activities

- 1999– **Information Architect/Information Technology Editor.**  
Digital Library of Mathematical Functions
- 1999– **Developer**,  $\LaTeX$ XML.  
Converts  $\TeX/\LaTeX$  to XML, HTML, MATHML
- 2005–2016 **Member**, *Math Working Group*, W3C.
- 2016 **Track Chair**, *Mathematical Knowledge Management*, at Conferences on Intelligent Computer Mathematics, 2016.

### Recent/Relevant Publications

- 2016 KOHLHASE, M., JOHANSSON, M., MILLER, B., DE MOURA, L., AND TOMPA, F., Eds. *Proceedings of Conference on Intelligent Computer Mathematics* (2016), vol. 9791 of *Lecture Notes in Artificial Intelligence*, Springer International Publishing.

- 2015 MILLER, B. R. Strategies for parallel markup. In *Proceedings of Conference on Intelligent Computer Mathematics* (2015), M. Kerber, J. Carette, C. Kaliszyk, F. Rabe, and V. Sorge, Eds., vol. 9150 of *Lecture Notes in Artificial Intelligence*, Springer International Publishing, pp. 203–210.
- 2010 STAMERJOHANN, H., KOHLHASE, M., GINEV, D., DAVID, C., AND MILLER, B. Transforming large collections of scientific publications to XML. *Mathematics in Computer Science* 3, 3 (2010), 299–307.
- 2008 MILLER, B. R., AND YOUSSEF, A. Augmenting presentation mathml for search. In *Proceedings of Conference on Intelligent Computer Mathematics* (2008), vol. 5144 of *Lecture Notes in Artificial Intelligence*, Springer, Heidelberg.
- 1999 LOZIER, D. W., MILLER, B. R., AND SAUNDERS, B. V. Design of a digital mathematical library for science, technology and education. In *Proceedings of IEEE Advances in Libraries Conference* (May 1999).