



Announcing

A COS Seminar

February 13, 2009 at 2:00 pm

SH303

at The University of Southern Mississippi

Speaker: Baker Kearfott

Department of Mathematics and Statistics
University of Louisiana, Lafayette

Title: Mainstream contributions of Interval Computations in Engineering and Scientific Computing

Abstract:

Interval arithmetic, visible in its present form in the scientific computing literature for at least 46 years, has had a consistent strong following among experts in the field. Giving mathematical rigor to machine computations based on rounded approximations to real numbers, interval arithmetic has held enticing promise. Here is an outline:

1. We first present the basic mathematical questions that interval arithmetic can possibly answer.
2. We then briefly review the elements of interval arithmetic.
3. We point out pitfalls in the naive use of interval arithmetic.
4. We mention subjects in which interval arithmetic has already had a significant impact in commercial software and applications.
5. We briefly outline current research and promising areas for future impact.

Further Information

Further details and information about this and other departmental activities is available online at http://www.math.usm.edu/bulletin_board/.