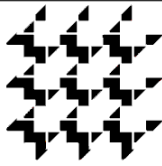

DIMACS

Center for Discrete Mathematics & Theoretical Computer Science
Founded as a National Science Foundation Science and
Technology Center

**NISS**

National Institute of Statistical Sciences

**Workshop on Experimental Analysis of Algorithms:
Interfaces between the Statistical and Computational Sciences
NISS Building, Research Triangle Park, NC
March 6-7, 2008**

The Center for Discrete Mathematics and Theoretical Computer Science (DIMACS) and the National Institute of Statistical Sciences (NISS) are organizing a workshop on the *experimental analysis of algorithms (EAA)*, to be held at NISS on March 6-7, 2008, whose purposes are to:

- Formulate and explore specific promising opportunities for collaborative research on EAA involving statistical, computational and other mathematical scientists;
- Stimulate and support formation of EAA collaborations, including initial research.

EAA holds major opportunities for collaboration between computational and statistical scientists. The most exciting and challenging problems will be those requiring advances in both fields. Longer-range goals include identification and creation of funding sources for collaborative EAA research that aims to have impact on both computer science and the statistical sciences, as well as on users of algorithms. The impacts range from informing selection of algorithms for a particular problem instance to formulating hypotheses about algorithmic behavior that lead to new theoretical results. Topics for potential discussion include: estimating asymptotic performance; sampling and experimental designs for multi-parameter algorithms; use of statistical methods to identify the key contributors to running time; design of convergence tests and stopping criteria for iterative methods; comparing results across platforms; and analyzing streaming data.

The workshop will be highly participatory. We aim to have six presentations by computational scientists on problems in EAA, each accompanied by a statistical response and followed by extensive discussion. In addition, there will be an open problem session at which any participant may speak. The organizing committee consists of Tami Carpenter (DIMACS), Siddhartha Dalal (Rand Corporation), David Johnson (AT&T Labs Research) and Alan Karr (NISS).

Space at the workshop is limited. Those interested in attending are invited to correspond with the organizing committee (by sending e-mail to eea08@niss.org before February 1, 2008) indicating the nature and depth of their interest. DIMACS and NISS are both committed to diverse participation in workshops. Women, members of under-represented groups and early career researchers are especially invited to apply to attend the workshop.

For additional information, please visit www.niss.org/affiliates/eea200803 or www.dimacs.rutgers.edu/Workshops/EAA