

PERI Auto-Tuning

David Bailey, Jacqueline Chame, Chun Chen, Jack Dongarra, Mary Hall, Jeffrey K. Hollingsworth, Paul Hovland, Shirely Moore, Keith Seymour, Jaewook Shin, **Ananta Tiwari**, Sam Williams, and Haihang You

In *Journal of Physics: Conference Series 125*, (November 2008).

Conferences:

Online Adaptive Code Generation and Tuning

Ananta Tiwari, and Jeffrey K. Hollingsworth

In Submission

A Scalable Autotuning Framework for Compiler Optimization

Ananta Tiwari, Chun Chen, Jacqueline Chame, Mary Hall, and Jeffrey K. Hollingsworth

In proceedings of the *IEEE International Parallel & Distributed Processing Symposium (IPDPS09)*, Rome Italy, May 2009.

Parallel Parameter Tuning for Applications with Performance Variability

Vahid Tabatabaee, **Ananta Tiwari**, and Jeffrey K. Hollingsworth

In proceedings of the *IEEE/ACM Supercomputing 2005 (SC'05)*, Seattle WA, November 2005.

Clio's Assistants: A Tool Suite for Exploring Student Web Usage

Greg Fuller, Joe Simonson, **Ananta Tiwari**, and Samuel A. Rebelsky

In proceedings of the *World Conference on Educational Multimedia, Hypermedia, & Telecommunications (EdMedia'02)*, Denver, CO, June 2002.

Invited Talks

- Online Adaptive Code Generation and Tuning
Paradyne/Condor Week 2010, Madison, WI. April 2010.
- A Scalable Autotuning Framework for Compiler Optimization
Paradyne/Dyninst Week 2009, College Park, MD. April 2009.
- Active Harmony: Automatic Performance Tuning
Maryland Software Day, University of Maryland, College Park. June 2008.
- Exploring Code Transformation Space with Active Harmony
Paradyne/Condor Week 2008, Madison, WI. April 2008.
- Standardized Search Space Representation for Empirical Optimization
Automatic Tuning of Libraries and Applications Workshop (High Performance Computer Science Week), Denver, CO. March 2008.

Research Demos

- Exploring Code Transformation Space (for SMG2000) using Active Harmony
At *IEEE/ACM Supercomputing 2009 (SC'09)*, Portland OR, November 2009.
- Automatic Tuning for Application-level Input Parameters using Active Harmony
At *IEEE/ACM Supercomputing 2007 (SC'07)*, Reno NV, November 2007.
- Dynamic Adaptability in Scientific Applications
Paradyne/Condor Week 2007, Madison, WI. April 2007. &
Paradyne/Dyninst Week 2006, College Park, MD. April 2006.

Teaching Experience **University of Maryland**, College Park, Maryland USA

Teaching Assistant: CMSC132 Object Oriented Programming

Fall 2004, Summer 2006

Responsibilities included leading discussion sessions, holding office hours and grading. CMSC132 is an introductory course (in Java) that includes students from a wide range of backgrounds and interests.

Grinnell College, Grinnell, Iowa USA

Teaching Assistant: CS151, CS152 and CS341

2001-2004

Responsibilities included leading lab sessions, holding tutoring hours and grading. CS151 and CS152 are introductory courses (in scheme and Java respectively). CS341 is an advanced topic course in theory of computation.

Software Experience Java, C, C++, Scheme/Lisp, Fortran, Perl, Python, Linux, Unix, Windows, MPI, OpenMP, Tcl/Tk, Lex, Yacc, ANTLR

Awards, Honors, and Services

- Referee for PPOPP 2010 conference.
- Active member of Social Action Volunteers (SAV-Nepal) — an organization that helps orphan children in Nepal.
- Mortar Board Senior Honor Society, Grinnell College, 2004.
- Recipient of Linn Smith Prize for Excellence in Mathematics, Grinnell College, 2004.
- Grinnell College Dean's list: Spring 2001, Fall 2001, Spring 2002, Fall 2002, Spring 2003
- Recipient of Joseph F. Wall Outstanding Junior Award - Grinnell College, 2003.
- Ranked first in all-Nepal class 11 and class 12 examination (1998 and 1999).

References

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Alan Sussman
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Email: als@cs.umd.edu