

# MASPLAS'98

## Mid-Atlantic Student Workshop on Programming Languages and Systems

in cooperation with  
ACM SIGPLAN

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DCS-TR-353

hosted by:

Rutgers The State University of New Jersey  
Programming Languages Research Group  
<http://www.prolangs.rutgers.edu>

# MASPLAS'98

The Mid-Atlantic states Student workshop on Programming Languages and Systems (MASPLAS'98) is a one day workshop for graduate and undergraduate students. There are opportunities to present their research in both talk and poster sessions. This year, we are pleased to host ACM Turing Award winner Dr. Dennis Ritchie of Bell Laboratories, Lucent Technologies as our keynote speaker.

These annual regional conferences provide opportunities for students to network and for group mentoring. The goals of these meetings are fourfold (as explained by two previous hosts, Dr. Michael Hind and Dr. Phil Pfeiffer):

- To allow graduate students to present their work to a small audience of unfamiliar colleagues.
- To allow constructive criticism of work from people outside of their own departments.
- To allow undergraduate and graduate students to participate in the interactions that occur at a research conference but at reduced cost.
- To promote contact among undergraduates, graduate students and faculty in the Mid-Atlantic States region.

Annual MASPLAS meetings have been held since Spring 1995. Previous hosts included: East Stroudsburg University in northeastern Pennsylvania and SUNY New Paltz in southeastern New York.

The following schools are participating in MASPLAS'98 by sending presenters: East Tennessee University, Haverford College, Bryn Mawr College, Rutgers University, New Jersey Institute of Technology, SUNY at Albany, SUNY at New Paltz, University of Delaware, and University of Pennsylvania.

Only the forward materials in this technical report are available online. To obtain a full copy of the report, please send email to [techreport@cs.rutgers.edu](mailto:techreport@cs.rutgers.edu).

Acknowledgements: We want to especially thank Mary Ann Holtsclaw, Mary Hoffman, and Charles McGrew for their contributions to the success of this meeting and the Department of Computer Science for its financial support.

Conference Organizers: Barbara Ryder ([ryder@cs.rutgers.edu](mailto:ryder@cs.rutgers.edu)) and Matthew Arnold ([marnold@cs.rutgers.edu](mailto:marnold@cs.rutgers.edu)).

# Keynote Address

Dr. Dennis Ritchie

## Portable Distributed Systems

Today's operating system and language technology makes it possible to produce computer software systems that are portable over a broad range of platforms and environments. This talk reviews the techniques that have been used by our group to produce such systems.

The two areas that are most important are coherent, simple ways of naming and accessing distributed resources, and language technology that promotes program portability. The presentation discusses the Bell Labs work on Plan 9 and Inferno as well as looking at other approaches.

Recent work used a newly developed language, Limbo, that uses implementation techniques similar to those of Java, but more thoroughly integrated into a virtual operating system as well as a virtual machine. The talk will mention the main features of Limbo and some of the experiences with it.

## Biography of Dennis Ritchie

Dr. Dennis M. Ritchie is head of the System Software Research Department of Bell Laboratories, the research and development arm of Lucent Technologies. He joined Bell Laboratories in 1968 after obtaining his graduate and undergraduate degrees from Harvard University. He assisted Ken Thompson in creating the Unix operating system, and is the primary designer of the C language, in which Unix, as well as many other systems, are written. He continues to work in operating systems and languages.

He is a member of the US National Academy of Engineering, is a Bell Laboratories Fellow, and has received several honors, including the ACM Turing award, the IEEE Piore, Hamming and Pioneer awards, and the NEC C&C Foundation award.

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- “Evaluating the Effectiveness of a Parallelizing Compiler”, Dixie Hisley, U.S. Army Research Laboratory, Gagan Agrawal & Lori Pollock, University of Delaware.
- “Automatic Memory Remapping for Time Skewing”, Tina Shen, Bryn Mawr College, David Wonnacott, Haverford College.
- “A General Partitioning Algorithm for Local/Global Array Addressing”, Haleh Najafzadeh, Lenore Mullin, University of New York.
- “Adaptive Disk Rearrangement Revisited”, Richard Gray, East Tennessee State University.
- “PLANet: An Active Network Tetbed”, Michael Hicks, Johathan Moore, D. Scott Alexander, Carl A. Gunter and Scott Nttles, University of Pennsylvania.
- “EAS: An Experimental Applicative Language With Sets”, Chung Yung, New York University

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