

Frances Allen

Fran Allen is an IBM Fellow Emerita at the T. J. Watson Research Laboratory with a specialty in compilers and program optimization for high performance computers. Soon after joining IBM Research in 1957 as a programmer with a University of Michigan master's degree in mathematics, she found a single technical goal that would drive her career. That goal was and still is to enable both programmer productivity and application performance in the solution of problems on computers. Her work towards this goal led to Allen being named the recipient of ACM's 2006 Turing Award "For pioneering contributions to the theory and practice of optimizing compiler techniques that laid the foundation for modern optimizing compilers and automatic parallel execution."

She is a member of the American Philosophical Society and the National Academy of Engineers and is a Fellow of the American Academy of Arts and Sciences, ACM, IEEE and the Computer History Museum. She has served on numerous national technology boards including CISE at the National Science Foundation and CSTB for the National Research Council. Allen is also an active mentor, advocate for technical women in computing, environmentalist and explorer.



UNIVERSITY of WISCONSIN
LA CROSSE

Distinguished Lecture Series in Computer Science

Reservations are due Feb. 28, 2008.

Lectures

Symposium

Parallel Computers Will Be Everywhere: How will we use them?

Multi-core computers are ushering in a new era of parallelism everywhere. As more cores (and parallelism) are added, the potential performance of the hardware will continue to increase. But how will users and applications take advantage of all the parallelism? Some people believe this question identifies one of the biggest challenges computer science has ever faced. I agree but I also believe that it offers a great opportunity. The talk will focus on the role programming languages and compilers must play to achieve both application performance and programmer productivity. The speaker's personal experiences with languages and compilers for high performance systems will provide the basis for her observations. The talk is intended to encourage the exploration of new approaches towards making parallel systems more efficient and much easier to use.

Keynote

Languages, Compilers and High Performance Systems: A Personal Perspective

The talk will describe a related sequence of projects including some early, very bold projects that profoundly influenced the field even as some of them failed. Since the speaker was directly involved with several of these projects and very familiar with all of them, the talk will include a personal perspective of what worked and what didn't, the historical threads of some ideas, lessons learned and artifacts existing in systems today that we may want to reexamine. The talk will conclude by briefly describing the current challenge of universal parallel computing and suggesting some approaches for working on it.

The University of Wisconsin-La Crosse Distinguished Lecture Series in Computer Science is funded by private gifts to the UW-La Crosse Foundation Inc. and through support from the Department of Computer Science and the College of Science and Health. The purpose of the series is to bring to La Crosse each year a computer scientist whose significant accomplishments and communication skills can inspire and enrich the careers of students and faculty and the computer community in general.

UW-L is one of 13 four-year campuses of the UW System. The university offers a broad range of undergraduate majors and master's level programs in selected disciplines. Current enrollment is about 9,200 students with approximately 150 computer science majors. La Crosse is located in western Wisconsin on the Mississippi River. It is on direct transportation routes between Chicago, Milwaukee, Madison and Minneapolis-St. Paul. It is served by Amtrak (Chicago, Milwaukee and St. Paul line) and numerous bus lines. Scenic secondary roads and highways (I-90 in particular) connect La Crosse with Chicago, Milwaukee, Madison, Rochester and the Twin Cities. American Eagle and Northwest Airlines provide regular passenger service to major midwestern air terminals.

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Make Lecture Series reservations for:

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Check events attending:

_____ Keynote Lecture

_____ Reception

_____ Symposium

Other participants from your organization:

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Reservations are due Feb. 28, 2008.

Detach this card and send registration to:

UW-L Foundation

Cleary Alumni & Friends Center

615 East Ave. N.

La Crosse, WI 54601

608.785.6803

Fax 608.785.6868

E-mail: olsen.nata@uwlax.edu

Monday, March 3, 2008

- 10:30 a.m. **Registration**
Cleary Alumni & Friends Center
- 11 a.m. **Symposium**
Parallel Computers Will Be Everywhere: How will we use them?
- Noon **Reception for Frances Allen**
Cleary Alumni & Friends Center
- 4:30 p.m. **Registration**
Cleary Alumni & Friends Center
- 5 p.m. **Keynote**
Languages, Compilers and High Performance Systems: A Personal Perspective
- 6 p.m. **Informal Questions/Social**
Cleary Alumni & Friends Center

All events are open to the public but may we suggest you reserve a place by registering in advance using the form attached.

Persons attending the Lecture Series may park in University Lot #12, the Cleary Alumni & Friends Center at East Avenue & La Crosse Streets.

For further information contact:

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Monday, March 3, 2008

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Fran Allen

IBM Fellow Emerita at the
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Co-sponsored by the
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Department of Computer Science
College of Science and Health