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The Information Science & Technology Center

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Colorado State University's
Information Science and Technology Center (ISTeC)
presents two lectures by



Dr. Stan Wagon
Department of Mathematics and
Computer Science
Macalester College

ISTeC Distinguished Lecture

in conjunction with the
Electrical and Computer Engineering Department and
Computer Science Department Seminar Series

“Impossible, Unbelievable... but True Results of Mathematics and Physics”

Monday, February 23, 2009

Reception: 10:30 a.m.

Lecture: 11:00 – 12:00 noon

Location: Shepardson room 118



Computer Science Department Lecture
sponsored by ISTE C

“Extreme Computing: The SIAM 100-Digit Challenge”

Monday, February 23, 2009

Lecture: 2:00 – 3:00 p.m.

Location: Weber 202

ABSTRACTS

“Impossible, Unbelievable... but True Results of Mathematics and Physics”

Math and physics are full of surprising results, both concrete and abstract. Modern computing tools, especially *Mathematica*, allow us to visualize and confirm many surprising things. In this talk Dr. Wagon will give a sampling of several that have made a strong impression on him, mostly from math, but some from physics.

“Extreme Computing: The SIAM 100-Digit Challenge”

A few years ago a prominent numerical analyst challenged the community with a contest consisting of ten difficult computation problems, the idea being to get 10 digits of the answers to each. Enthusiasts around the world submitted solutions and 20 teams got perfect scores of 100. The solutions to these problems involve many surprising and elegant techniques, and this talk will survey the diverse methods used. Intriguing follow-up points were: Can one prove that the results are correct? Can one get, say, 10,000 digits as opposed to only 10 for each problem? The answers to both of these are YES for the majority of the problems.

SPEAKER BIOGRAPHY

Dr. Stan Wagon (<http://stanwagon.com/>), professor of mathematics at Macalester College, grew up in Montreal and obtained his Ph.D. at Dartmouth College. His current mathematical interest is the use of computing to bring abstract concepts to life. He has written 11 books and 100 papers, and has appeared in Ripley's Believe It Or Not for his construction of a working square-wheeled bicycle. He has won several prizes for writing and shared the first-place prize in the SIAM 100-Digit Challenge. Other interests include ultramarathoning (founding editor of Ultrarunning magazine), ski mountaineering (led a group attempting a ski ascent of Mt Logan, Canada's highest peak at 19,500 feet), nordic ski racing (completed a 100-mile race), and competitive snow sculpture, where his team uses geometrical themes and has won three silver medals in international competition.

To arrange a meeting with the speaker, please contact Ross McConnell (Computer Science) at 970-491-7524 or rmm@cs.colostate.edu.

ISTeC (Information Science and Technology Center) is a university-wide organization for promoting, facilitating, and enhancing CSU's research, education, and outreach activities pertaining to the design and innovative application of computer, communication, and information systems. For more information please see ISTeC.ColoState.edu.