



## Lecture to Explore Mathematics of Chess Moves

Jan. 27, 2009

Educator and former chess champion Dr. Alexey Root will discuss how the game illustrates mathematical concepts at a UT Dallas public lecture.

The program is scheduled for 2 p.m. for Saturday, Jan. 31, in room 2.410 of the Engineering and Computer Sciences Building (South) at UT Dallas.

As part of the presentation, participants will try activities from Root's books, including the famous "eight-queens problem," which illustrates the mathematical concept of domination, a central idea in graph theory.

Root has been a tournament chess player since age 9 and won the U.S. women's championship in 1989. She is a senior lecturer at UT Dallas and was the associate director of the UT Dallas Chess Program from 1999 to 2003.

Root's work explores how chess can help educators in the classroom. Her books are *Children and Chess: A Guide for Educators* (2006); *Science, Math, Checkmate: 32 Chess Activities for Inquiry and Problem Solving* (2008); and *Read, Write, Checkmate: Enrich Literacy with Chess Activities* (2009).

Dr. Root's lecture is free to the public and is presented by the Metroplex Math Circle (MMC), a program sponsored by UT Dallas designed to attract talented students to mathematics and to provide an accelerated avenue to develop students' mathematical and problem-solving skills.

Past speakers at MMC events have included distinguished math professors from around the world as well as gold medalists in international math Olympiads.

"The concept of domination is one of the central ideas in graph theory, and is especially important in the application of graph theory to the real world" according to Watkins in *Across the Board: The mathematics of chessboard problems*.



Dr. Alexey Root

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