

The Humboldt State University Department of Mathematics
Presents:

*The 49th Harry S. Kieval Lecture***

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Thursday, February 8, 2007

7:00 P.M.

Science B 135

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Ms. Melanie Wood

**Doctoral Student at
Princeton University**

**"The Creative Process
of Mathematics"**

**Insight. Originality. Inspiration. Opening your
mind. Finding a different way, a different point of
view. Playing around. Experimenting. Creating.
That is mathematics.** Somehow our society and even our
education system has perpetuated the myth that mathematics is about
memorization, technicalities, formulas and equations, only one correct
answer. Yet that picture entirely fails to describe the creative process of
professional mathematics.

**A lecture on some popular and/or broad aspects of mathematics attractive to undergraduates and the public
For More Information go to: <http://www.humboldt.edu/~mathdept/HarrySKieval/kl.html>

HSU is an AA/EO institution.
Disability accommodations may be available from event sponsor at 826-5347

MATHEMATICS DEPARTMENT COLLOQUIUM

Ms. Melanie Wood

Doctoral Student at
Princeton University

Thursday

February 8, 2007 4:00P.M.

Siemens Hall 117

Pre-Colloquium Tea

Library 56 3:30 P.M.

“Amongst Enough Chaos, Can We Find Order?”

Suppose we are given a large grid of points colored either red or blue. Can we always find a rectangle with all four vertices colored the same color? If that’s too easy, then we can try to find a square with all of its vertices the same color. All of a sudden, the problem is much harder and leads to a more general question. Given enough “stuff,” colored in some chaotic manner that we have no control over, when can we find a monochromatic version of some structure? And what does this have to do with winning higher dimensional tic-tac-toe?

Melanie Wood is a doctoral student at Princeton University. While attending High School Ms. Wood was the first female to make the USA International Math Olympiad team. As a college student at Duke University, she was the first American female to be a Putnam Fellow, a winner of the top mathematics competition for college students. In 2004, Ms. Wood was the first female winner of the American Mathematical Society-Mathematical Association of American Morgan Prize for the best mathematics research done by an undergraduate. She won a Fulbright and a Gates Cambridge Fellowship to study in the United Kingdom, and graduate fellowships from the National Science Foundation and Department of Defense. Ms. Wood is currently a graduate student at Princeton University studying algebraic number theory.