The Humboldt State University Department of Mathematics
cordially invites you to attend

THE 36th HARRY S. KIEVAL LECTURE

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Noam D. Elkies

Professor of Mathematics
Harvard University

"A Mathematical Look at Musical Canons"

Thursday, October 26,
8:00 p.m.
Fulkerson Recital Hall

Musical canons, from simple rounds like "Three Blind Mice" to the compendium of canons Bach compiled in his *Musical Offering*, have a history almost as long as that of Western music itself, and continue to fascinate composers, performers and students of music. In a canon the same melody is played or sung in two or more parts at once; this melody must therefore make musical sense both as a tune and in harmony with a delayed or otherwise modified copy of itself. How does one go about constructing such a melody? This challenge has a mathematical flavor. It turns out that some kinds of canons are so easy to create that they can be improvised in real time, while other kinds are more demanding, and in some cases only a handful of examples are known. The lecture will be illustrated with both abstract diagrams and specific musical examples, and may also digress into generalizations of canons (the forms known collectively as "invertible counterpoint") and the reasons --besides showing off-- that so many composers incorporate canons into their music.

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For more information go to: http://www.humboldt.edu/~mathdept/HarrySKieval/kl.html