DEPARTMENT OF MATHEMATICAL SCIENCES
Muhlenberg College
Allentown, PA

The Department of Mathematical Sciences Cordially Invites You
To a Colloquium

By

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The Golden Ratio, Wolfgang Mozart, Leonardo Da Vinci and Led Zeppelin!?

There are very few irrational numbers as popular as π and Euler's e. One of their contemporaries, dubbed the golden ratio, takes the value $\frac{1+\sqrt{5}}{2} = \phi$. We'll tout some of ϕ's occurrences in mathematics, see its impact in the art of Da Vinci, and note its seemingly ubiquitous behavior. From here we'll ponder the possibility of its repeated use by Wolfgang Mozart in his sonatas. Some of John Putz's arguments will be supplemented with a deeper statistical investigation. Finally, we'll contribute to the folklore surrounding this number by conjecturing that it influenced Led Zepplin. Please join us for what certainly meets the criterion for *recreational mathematics!*

Optional Reading:

Putz, John 1995. "The Golden Section and the Piano Sonatas of Mozart". *Mathematics Magazine.* Vol. 68, No. 4, 275-281.

- Copies of Putz's paper are available from Dr. Cicconetti.

DATE: Thursday, February 3, 2004
TIME: 4:30 p.m.
PLACE: TR 125

Snacks will be served at 4:15 p.m. in TR 125.