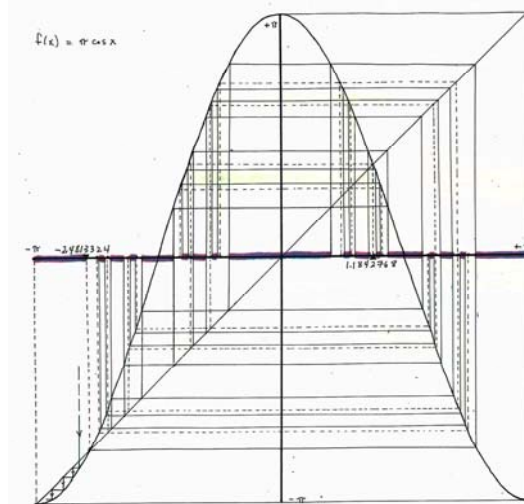


Department of Mathematics

Spring 2016 Colloquium Series



“Chaos from Simple Trigonometry”

**Professor Rick Luttmann,
Sonoma State University**

Thursday, April 7, 2016

Behavioral and Social Sciences Building Room 166, 4 p.m.

We investigate iterations of the function $f(x) = \pi \cos x$, and show that "most" starting points (all but a set of measure 0) lead to sequences that converge to $-\pi$, one of three fixed points. But the set of measure 0 is enormously complex -- totally disconnected, uncountably infinite, and containing finite sets of periodic points of every order, countably many points that are eventually periodic, and uncountably many points whose orbits are "chaotic" in the sense of not being even asymptotically periodic.

Rick Luttmann holds a Ph.D. from the University of Arizona at Tucson. He is the Associate Editor of the American Mathematical Monthly and is a frequent speaker in Northern California and the State of Jefferson.

For a complete abstract, go to <http://www.humboldt.edu/math/news-and-events/math-colloquium>

***We invite you to the Pre-colloquium Tea on the third floor of the BSS
building at 3:30 on Thursday.***