



The Math/Stats Colloquium  
Department of Mathematics and Statistics  
San José State University



## Eliot Fried

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*Kaleidocycles and Möbius bands*

MARCH 14, 2018, MH320

**Abstract:** Many of Escher's works have become mainstays of popular culture. Famous examples include his kaleidocycles, each consisting of six identical tetrahedra and being capable of undergoing a cyclic ev-erting motion that brings different tessellations of the tetrahedra into view. Escher also provided memorable interpretations of Möbius bands. We will consider kaleidocycles made from seven or more identical tetrahedra and expose a deep, and to our knowledge, previously unnoticed connection between kaleidocycles and the  $3\pi$ -twist Möbius band.

*Background:* Vector algebra, linear algebra, basic calculus.

**About the speaker:** Eliot Fried received his Ph.D. from the California Institute of Technology in 1991 and leads the Mathematics, Mechanics, and Materials Unit at the Okinawa Institute of Science and Technology. In addition to using statistical and continuum theories to formulate physically sound models for novel mechanical systems and materials, he enjoys using tools from geometry, asymptotic analysis, bifurcation theory, and scientific computing to extract insight from those models.

SNACKS IN MH331B AT 2:30 PM

TALK STARTS AT 3:00 PM

For more information, see our full schedule at:

<http://www.math.sjsu.edu/~hsu/colloq/>