## **DEPARTMENT OF MATHEMATICS**



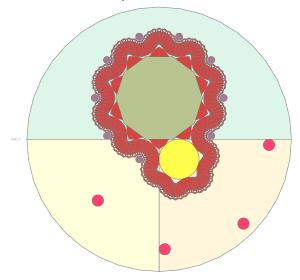
## Fall 2023 Colloquium Series

## The Microscopic World of Piecewise Isometries

Dr. Arek Goetz

## Professor of Mathematics San Francisco State University

In this talk we invite the audience to witness how a rigid exchange of two or more regions leads to strikingly complicated and beautiful dynamics in the plane. A rich landscape of phenomena is due to the presence of discontinuities that propagate forming patterns that appear to be self-similar. We present examples for which the local dynamics is not well understood as well as major open questions in this field some of which may be of interest to undergraduate students. Examples of such maps are dual billiards and invertible rotations of two halfplanes. The presentation will be accessible to an audience without familiarity with advanced dynamical tools.



October 19, 2023 Thursday 4:00 PM BSS 166

FOR MORE INFO GO TO HTTPS://MATH.HUMBOLDT.EDU/GET-INVOLVED/MATHEMATICS-COLLOQUIUM