



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



Victoria Noquez

St. Mary's College of Cal. (Moraga, CA)

*Fractals and
Category Theory*

WED MAY 03, 2023, MH320

Abstract: In this talk we will explore the development of a surprising connection between category theory and fractal sets. We will start by understanding Hutchinson's presentation of fractals (like the Sierpinski triangle) as the unique set-wise fixed-point of a finite family of contraction operators on a metric space. Then we will introduce final coalgebras (and all of the necessary category theory background) and outline the development of the machinery necessary to consider different fractal sets in the category theoretic framework.

Background: No particular background necessary.

About the speaker: Victoria Noquez completed her B.S in Mathematical Sciences with an additional major in Logic and Computation at Carnegie Mellon Univ. and her Ph.D. in Mathematics at U. Ill. Chicago. She held postdoctoral fellowships at Harvey Mudd Coll. and Indiana U. Bloomington before starting her current position as an Assistant Professor at St. Mary's College of California (Moraga) in Fall 2022. In her (very limited) spare time, she performs magic professionally.

SNACKS IN MACQUARRIE HALL 331B AT 2:40PM

TALK STARTS AT 3:00PM

For more information, see our full schedule at:

<http://www.timhsu.net/colloq/>