



The Math Colloquium
Department of Mathematics
San José State University



Linda Green

Dominican Univ. of California

The Topology of Surfaces and the Shape of Space

FEBRUARY 20, 2013, MH320

Abstract: Informally, two objects have the same topology if the first object can be deformed to look like the second by bending and stretching it, without making any violent changes like tearing or fusing. In this talk, we will represent 2-dimensional surfaces as “gluing diagrams” of polygons whose edges are attached together in pairs. We will develop techniques to decide if two gluing diagrams represent surfaces with the same topology. By generalizing these ideas to 3-dimensional spaces, we can gain an understanding of possible shapes for the universe.

Background: No particular background is required.

About the speaker: Linda Green received her PhD from Princeton University, where her research focused on the topology of 3-dimensional spaces. She is currently an Assistant Professor at Dominican University of California, where she collaborates with biology students and faculty members on mathematical models of diseases.

SNACKS IN MH331B AT 2:30 PM

TALK STARTS AT 3 PM

For more information, see our full schedule at:

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