



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



Marion Campisi

SJSU

Neighbors of Knots in the Gordian Graph

OCTOBER 7, 2015, MH320

Abstract: Knot theory considers embeddings of circles up to isotopy. One simple way to transform a knot is to allow the knot to pass through itself, which is called a crossing change. Understanding the effect of crossing changes on knots is a central endeavor of knot theory. For example, each knot can be transformed into the unknot (a knot isotopic to the standardly embedded circle) by changing crossings, but the minimal number of crossing changes needed is poorly understood. In this talk we show that there exist arbitrarily complicated knots which can be transformed into the unknot via a single crossing change.

Background: Basic familiarity with topology is beneficial, but not required.

About the speaker: Marion Campisi received her Ph.D. from UC Davis in 2010. She recently completed a two year postdoctoral appointment at Stanford University and joined the math faculty at SJSU this fall. Her research is in low dimensional topology.

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/>