Robin Wilson

Cal Poly Pomona (visiting Pomona College)

Symmetries of the Heawood graph
and its spatial embeddings

November 01, 2017, MH320

Abstract: The study of embedded spatial graphs generalizes the study of knots and links and has applications to chemistry. In this talk we are interested in the relationship between the automorphisms of a graph and the homeomorphisms of the embeddings of the graph in space. Specifically we would like to know when an automorphisms of a given graph is *realizable*, i.e., induced by a homeomorphism of an embedding of the graph in $\mathbb{R}^3$. We will discuss the classification of realizable automorphisms for certain families of graphs, and will share recent results classifying realizable automorphisms of the Heawood graph.

Background: Talk should be accessible to undergrads at any level.

About the speaker: Robin Wilson is a Professor of Mathematics at Cal Poly Pomona, and is currently a Visiting Professor at Pomona College for Fall 2017. He earned his PhD in Mathematics from UC Davis in 2006 and joined the faculty at Cal Poly Pomona in 2007 after a postdoc at UC Santa Barbara. His current research interests include both low-dimensional topology and math education.

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/