

Bing Speaker Series



Dr. Erica Flapan
Dept. of Mathematics
Pomona College
Friday, April 24, 2015
11:00-12:00
DERR 329

Intrinsic Properties of Graphs Embedded in R^3

Knot theory is the study of embeddings of simple closed curves in R^3 . A natural extension of knot theory is the study of embeddings of graphs in R^3 . However, in contrast with knots, the structure of a graph can be complex, and this can affect all of its embeddings. If every embedding of a graph has a particular property, then we say that property is intrinsic to the graph. For example, a graph is said to be intrinsically knotted if every embedding of the graph in R^3 contains a knot. In this talk I will discuss intrinsic knotting and other intrinsic properties of graphs.

Bio: Erica Flapan is the Lingurn H. Burkhead Professor of Mathematics at Pomona College. Her research interests are knot theory, topology of embedded graphs, 3-manifolds, and applications of topology to chemistry and molecular biology. Dr. Flapan has published numerous papers and worked on three books. In 2012 she became a fellow of the American Mathematical Society. In 2011, Dr. Flapan received the Haimo Award for Distinguished College or University Teaching Mathematics from MAA and has been named a Polya Lecturer of the MAA for 2015-2016.