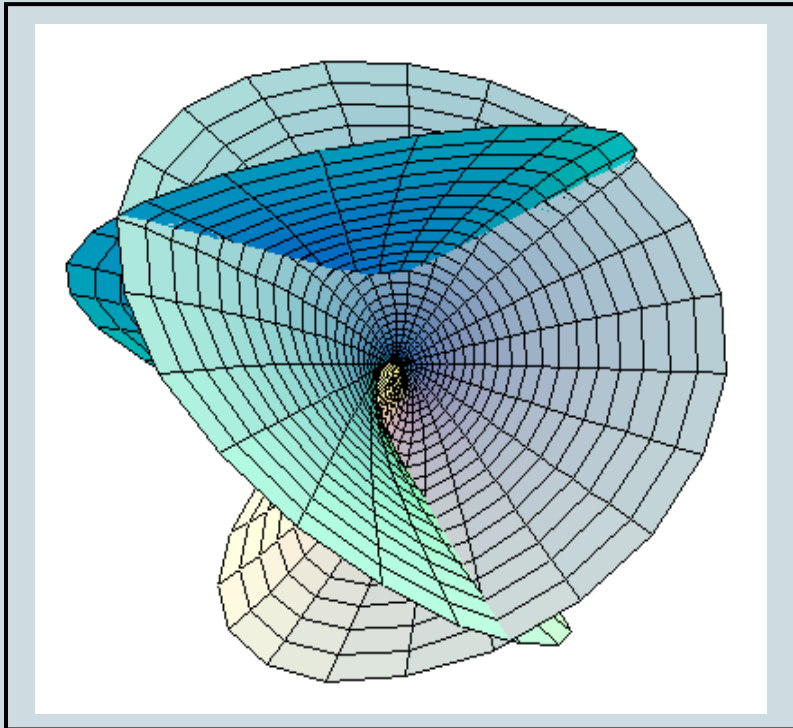


UCCS Department of Mathematics

Math Colloquium Series

DR. GREG OMAN

UNIVERSITY OF COLORADO | COLORADO SPRINGS



DATE:

NOVEMBER 19, 2015

TIME:

12:30PM-1:30PM

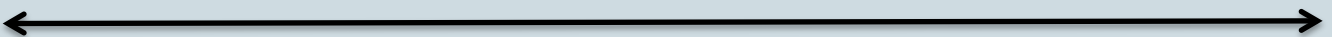
(REFRESHMENTS AT 12:15PM)

LOCATION:

OSBORNE CENTER

ROOM# A327

Turning automatic continuity around: automatic homomorphisms



ABSTRACT: Let G and H be Polish groups (that is, G and H are groups on which a complete metric d is defined for which multiplication and inversion are continuous) and let $f: G \rightarrow H$ be a function. The automatic continuity problem is the following: assuming f is a group homomorphism, find conditions on G , H , or f which imply that f is continuous. We initiate a study of a reverse problem: supposing f is continuous, find conditions on G , H , or f which imply that f is a group homomorphism. In this talk, we treat the case $G = H = \mathbb{R}$, the topological group of real numbers.