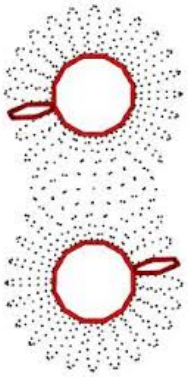
TEXAS STATE UNIVERSITY

The rising STAR *of Texas*



Topology Seminar

Friday, 2018, February 23, 11:00-11:50 a.m., in DERR 334

Speaker: Prof. Tom Thickstun

Title: *Homogeneity of the Pontryagin surface*

ABSTRACT

A Pontryagin surface is roughly speaking a nowhere-Euclidean space which can be be "approximated" by closed orientable surfaces (the better the approximation required, the higher the genus of the approximatiing surface). A Pontryagin disk is, by definition, the closure of one of the two complementary components of a separating simple closed curve in a Pontryagin surface. Homogeneity of the the Pontryagin surface was established several years ago but the following theorem (which will be presented in this talk) is stronger than homogeneity.

Theorem (*Daverman, Thickstun*):
Any homeomorphism of the boundary of one Pontryagin disk to the boundary of another extends to a homeomorphism of the Pontryagin disks.

The proof is intricate but elementary.

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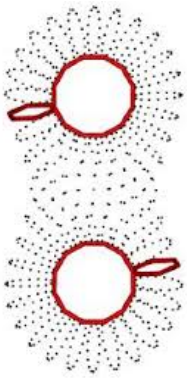

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