

Counterintuitive Sets

There exist bounded sets in the plane which have no area but which contain a line segment of unit length in every direction.

There exists a set contained in the unit square $[0,1] \times [0,1]$ of area 1 which has the property that for every point in the set there is a line in the plane which intersects the set only in that point.

I will discuss the constructions of such sets. Besides being curiosities, these sets provide useful examples in the study of differentiation of integrals (that is, the Fundamental Theorem of Calculus) in dimension 2.

Speaker: Chuck Moore
Mathematics
Kansas State University

Time: Friday, Feb. 6
4-4:50 pm

Place: Room 309, Haag Hall
UMKC

Refreshments will be served. Please Announce to Your Classes.