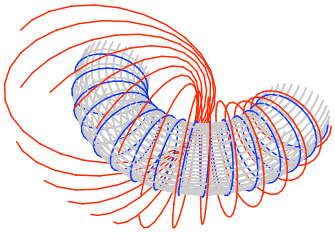

# Global Analysis Seminar

# Topological properties of polynomial hulls

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**Abstract**: Every continuous function of real variables can be uniformly approximated by polynomials on a compact set. The corresponding statement for functions of complex variables is false in general, even for holomorphic functions. The approximation is possible only on *polynomially convex* sets.

In the one-dimensional case a compact $X$ is polynomially convex iff the complement to $X$ is connected. Such topological characterization is impossible in higher dimensions. For example, the union of three disjoint balls is polynomially convex, but there exist three disjoint polydisks whose union is not polynomially convex.

We will discuss some examples and some topological properties of polynomially convex sets.

Wednesday October 27, 1–2:20pm
Wachman Hall 617

`http://math.temple.edu/events/seminars/manifolds/`