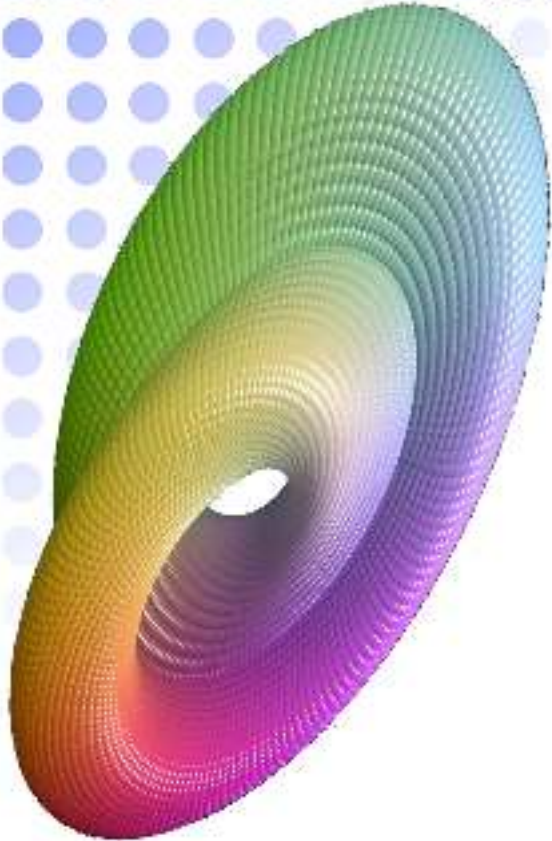


Michigan Math Club

Thursday at 4pm in the Nesbitt Room
Free Pizza and Pop



Whitney's Extension Theorem

Steven Damelin
(Math Reviews)

Abstract for 21 January 2016



Whitney's Extension Theorem, proved in 1934, is a partial converse to Taylor's theorem. It determines conditions when a function defined on a closed set of the real line can be extended to a smooth function on the whole line. Whitney's theorem is related to the problem of determining a function from finitely many measurements of its values (interpolation). It comes up in matching of data in computer vision, for use in face recognition. The talk will explain the theorem, describe some generalizations, and give some applications.