## Michigan Math Club Thursday at 4pm in the Nesbitt Room Free Pizza and Pop

## Zorn's Lemma

## Patricia Klein

Abstract for 27 March

We will develop the vocabulary necessary to state Zorn's lemma and then discuss its relationship to the (other) axioms of mathematics in common usage and to the axiom of choice and the well ordering principle. As an application of Zorn's lemma, we will prove that every vector space has a basis.

