

**PURDUE
FORT WAYNE**

Pi Math Club

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are pleased to present a talk by

Dr. Stephanie Edwards

Professor and Chair - Department of Mathematics
Hope College
Holland, Michigan



“The $P^2 + P'$ problem and George Pólya”

Many open problems in entire function theory, specifically, the distribution of zeros of real entire functions, can be traced back to work by George Pólya. One of the problems stated in a Pólya and Szegő text from the early 1900's is: If P is a real polynomial with only real zeros, find the number of non-real zeros of $P^2 + P'$. If one removes the hypothesis that P has only real zeros, the problem becomes quite hard and was not solved until the 1980's. We will discuss a simple solution to the $P^2 + P'$ problem, look at natural questions that arise from the problem, and discuss some open questions that have their roots in Pólya.

Monday, Apr. 15th, 2019
at noon
in KT 216

Open to all interested.
Free pizza and pop following the talk.