## Spring 2019 Undergraduate Seminar Department of Mathematics



# This title is wrong.

Or: "The Universe does not exist!", said the mind all logic.

### Dr. Reza Pakzad

Associate Professor, University of Pittsburgh

Date: Tuesday, April 16

**Time:** 12:00 - 12:50 pm

#### Location: Room 703, Thackeray Hall

Reza obtained his B.Sc. degree in mathematics from Sharif University of Technology in Iran, and pursued his studies in France for a PhD under the supervision of Tristan Rivière at E.N.S. de Cachan. His research stemming from the study of non-convex variational problems has lead him to questions at the border of geometry and analysis. But after all these years in mathematics, he is still bewildered about the meaning of it all!



I will review the endeavors of many great mathematicians of the late 19th century and beginning of the 20th century, and their motivating philosophies in pursuing a consistent and complete axiomatic system for mathematics. On the way, they encountered many paradoxes, such as Russell's, with important implications for our mathematical understanding. In this context, it would be good to know then what an axiomatic system might be and what we mean by a model in which it is verified. I will end by presenting more logical conundrums, and in particular, discuss Gödel's Incompleteness Theorems. Food and drinks will be provided!

#### SPEAKER(S) FOR NEXT WEEK:

Enjoy the summer!



#### Organized by: Derek Orr, Tom Everest, Jeremiah Morgan, and Jeff Wheeler