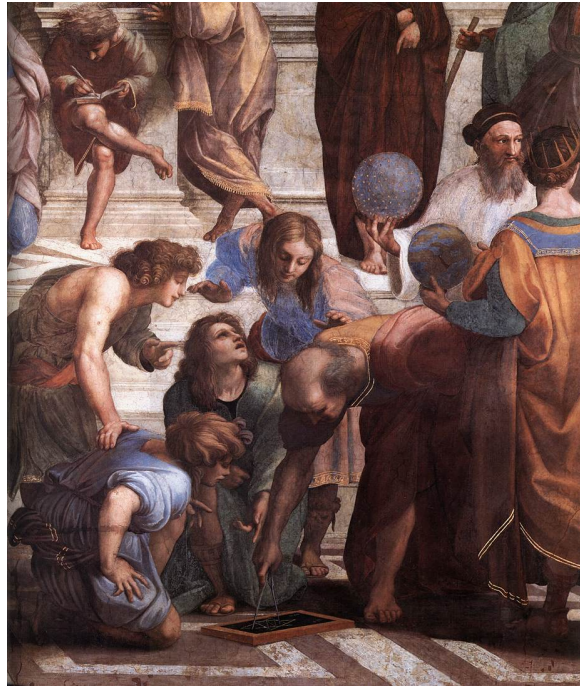


# Geometry Meets Logic: Formalizing Euclid's *Elements*

Undergraduate Math Club  
CORNELL UNIVERSITY



## SPEAKER

John Kolesar

## ABSTRACT

Even though Euclid takes a systematic approach to his proofs in the *Elements*, his proofs do not qualify as fully formal because they rely on a number of unstated assumptions about the nature of plane geometry. Modern mathematicians have sought to fill the gaps in Euclid's foundations for geometry by enumerating the necessary properties of the plane at the most basic possible level. The end result bears little resemblance to Euclid's original list of axioms but enables electronic proof assistants to work with plane geometry.

*Please note the unusual date – this talk will be on a Wednesday.*

# MAR 18 at 5:15pm

## Malott 532 ★ Refreshments