

The SUMO Speaker Series for Undergraduates

Thursday, October 31st

4:15-5:05, room 380C

(Food Provided)

**To what extent does what you can prove
about your model determine your model?**

Professor Hilaf Hasson



Abstract:

Gödel's completeness theorem states that anything that is always true must have a proof, given that the terms "proof", "anything" and "always true" are properly defined. We will define these terms in this context, and explain their limitations. Given Gödel's completeness theorem, we will then prove the "compactness theorem" (and mention some of its variants), which will give us a glimpse at the weird world of non-standard models of the natural numbers.

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