

MANY CHEERFUL FACTS

presents

What is *Your* Axiom of Choice? A Play in Many Cheerful Acts

12:10 pm - 1:00 on Wednesday, March 1st, in room 1015.
Note special time (this week only).

DRAMATIS PERSONÆ:

Kenny Easwaran as the Zermelo-Fraenkel Axioms
Alice Medvedev as the Axiom of Choice
Alfonso Gracia-Saz as the Well-Ordering Principle
Ari Nieh as Zorn's Lemma

Act 1: Russell's paradox is discovered – the Zermelo-Fraenkel Axioms boldly enter – cardinals are compared – the Axiom of Choice arises and claims to be natural

Act 2: the Well-Ordering Principle enters and proves the Axiom of Choice – Zorn's Lemma arrives to prove the Well-Ordering Principle – in return, the Axiom of Choice proves Zorn's Lemma

Act 3: the Banach-Tarski paradox – the Axioms defend their worth – Zermelo-Fraenkel asserts his independence

*I am the very model of a modern Major General,
I've information vegetable, animal, and mineral,
I know the kings of England, and I quote the fights historical
From Marathon to Waterloo, in order categorical;
I'm very well acquainted, too, with matters mathematical,
I understand equations, both the simple and quadratical,
About binomial theorem I'm teeming with a lot o' news,
With many cheerful facts about the square of the hypotenuse!*

- Gilbert & Sullivan $P \circ P$