# Spring 2018 Kolchin Lecture

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**Wednesday, April 18, 2018**
**Room 520 at 4:30pm**

## "Ultimate L"


**Abstract**

Just over 50 years ago the modern era of Set Theory began with Cohen's discovery of the method of forcing and his proof of the independence of the Continuum Hypothesis from the ZFC axioms of Set Theory. 25 years before Cohen's discovery of forcing, Gödel discovered the Constructible Universe of Sets and defined the axiom "V = L" which is the axiom that asserts that every set is constructible. This axiom implies the Continuum Hypothesis and more importantly, Cohen's method of forcing cannot be used in the context of the axiom "V = L".

However the axiom "V = L" must be rejected since it limits the fundamental nature of infinity. In particular the axiom refutes (most) strong axioms of infinity.
A key question emerges. Is there an "ultimate" version of Gödel's constructible universe yielding an axiom "V = Ultimate L" which retains the power of the axiom "V = L" for resolving questions like that of the Continuum Hypothesis, which is also immune against Cohen's method of forcing, and yet which does not refute strong axioms of infinity?

Until recently there seemed to be a number of convincing arguments as to why no such ultimate L can possibly exist. But the situation is now changed.



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