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Kunen's inconsistency and immediately below

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ABSTRACT:

At the end of his thesis William Reinhardt formulated a large cardinal hypothesis that was soon proven, by Kenneth Kunen, to be inconsistent with the Axiom of Choice. In this talk I will present Reinhardt's hypothesis and why it is such a strong statement. By looking at Kunen's proof one can formulate large cardinal hypothesis for which the proof fails just barely. Intriguingly, these hypothesis have since found applications in more mundane Mathematics, even finitary Mathematics. In particular, I will present Laver tables and a fact about them whose only known proof requires the use of such very large cardinals.

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