

Forcing axioms and inner models

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Since the results of Goedel in 1930, we know that no axiomatization of set theory can capture all its truths. Goedel himself suggested a program for systematically extending the standard list of axioms. Goedel's suggestion led to what I call the first generation of extensions, by means of large cardinal hypotheses, that postulate that the universe is "large." The second generation, that only now we begin to understand, postulates that the universe is "wide," and consists of forcing axioms.

I will discuss some recent results in set theory about the relationship between the universe of sets and its "close" inner models. These results were motivated by a series of conjectures in the theory of forcing axioms.

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3:40PM

MG 139

Refreshments: 3:15 pm in MG226