

Logic Seminar

Ordinal definable subsets of singular cardinals

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Abstract: A remarkable theorem of Shelah states that if κ is a singular strong limit cardinal of uncountable cofinality, then there is a subset x of κ , such that HOD_x contains the powerset of κ . We show that in general this is not the case for countable cofinality. Using a version of diagonal supercompact extender Prikry forcing, we construct a generic extension in which there is a singular cardinal κ with countable cofinality, such that κ^+ is supercompact in HOD_x for all $x \subset \kappa$. This result was obtained during a SQuaRE meeting at AIM and is joint with Cummings, Friedman, Magidor, and Rinot.

Tuesday, September 27 at 4:00 PM in SEO 427