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Downward transference of mice and universality of local core models. (English) Zbl 06756180

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Summary: If M is a proper class inner model of ZFC and $\omega_2^M = \omega_2$, then every sound mouse projecting to ω and not past $0^\P$ belongs to M. In fact, under the assumption that $0^\P$ does not belong to $M, K^M \parallel \omega_2$ is universal for all countable mice in V.

Similarly, if M is a proper class inner model of ZFC, $\delta > \omega_1$ is regular, $(\delta^+)^M = \delta^+$ and in V there is no proper class inner model with a Woodin cardinal, then $K^M \parallel \delta$ is universal for all mice in V of cardinality less than δ.

MSC:

03E45 Constructibility, ordinal definability, and related notions
03E05 Combinatorial set theory (logic)
03E55 Large cardinals

Keywords:

core model; universality; Woodin cardinal; $\sum_3^1$-correctness

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