



Minisymposium 16 - Set Theory

Degrees of Rigidity for Souslin Trees and Changing the Heights of Automorphism Towers

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Various strong notions of rigidity for Souslin trees are investigated and separated, assuming the diamond principle, into a hierarchy. Most of these rigidity properties state that a tree has a certain rigidity property in any model obtained by forcing with the tree itself.

An application to the automorphism tower problem is given, showing that, again assuming diamond, there is a group the height of whose automorphism tower is highly malleable by forcing with certain Souslin trees. Carrying out the construction at higher cardinality levels gives the full statement on changing the heights of automorphism towers, that was realized by Hamkins and Thomas using proper class forcing, in L .