

# INDESTRUCTIBILITY OF THE TREE PROPERTY OVER MODELS OF PFA

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The tree property at a regular cardinal  $\kappa$  states that every  $\kappa$ -tree has a cofinal branch. We will prove that over any transitive model of PFA, the tree property at  $\omega_2$  cannot be destroyed by the single Cohen forcing  $\text{Add}(\omega, 1)$ . We will observe that a model-theoretic principle, Guessing model principle (GMP), is enough for the result. GMP can be formulated also for larger cardinals, so our result extends to  $\kappa^{++} \geq \omega_2$  and Cohen forcing  $\text{Add}(\kappa, 1)$  ( $\kappa$  regular).

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