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A tree π -base for \mathbb{R}^ without cofinal branches*

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Abstract: We prove an analogue to Dordal's result in P.L. Dordal, A model in which the base-matrix tree cannot have cofinal branches, J. Symbolic Logic 52 (1980), 651–664. He obtained a model of ZFC in which there is a tree π -base for \mathbb{N}^* with no ω_2 branches yet of height ω_2 . We establish that this is also possible for \mathbb{R}^* using a natural modification of Mathias forcing.

Keywords: distributivity of Boolean algebras, cardinal invariants of the continuum, Stone-Čech compactification, tree π -base

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