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Chris Conidis* (chris.conidis@csi.cuny.edu). *An algebraic characterization of the Tree Antichain Principle.*

The Tree Antichain Principle (TAC) says that every extendible binary tree with infinitely many splittings contains an infinite antichain, and arises in the study of Noetherian Commutative Algebra. We will give an algebraic characterization of TAC over $\text{RCA}_0 + \text{BSigma}_2$ by showing that it is equivalent to saying “every Noetherian ring in which every minimal prime ideal is maximal contains finitely many prime ideals” (NFCP). We will also introduce a weakening of TAC, WTAC, such that $\text{TAC} \rightarrow \text{NCP} \rightarrow \text{WTAC}$ over RCA_0 . (Received September 10, 2020)