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antichain

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Defines	antichain
Defines	maximal antichain

A subset  $A$  of a poset  $(P, <_P)$  is an *antichain* if no two elements are comparable. That is, if  $a, b \in A$  then  $a \not<_P b$  and  $b \not<_P a$ .

A *maximal antichain* of  $T$  is one which is maximal.

In particular, if  $(P, <_P)$  is a tree then the maximal antichains are exactly those antichains which intersect every branch, and if the tree is splitting then every level is a maximal antichain.