

STRAIGHTENING ALMOST CHAINS IN $\mathbf{P}(\omega)$

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Starting from the theory of Banach spaces we end up considering almost chains $\mathcal{A} = \{A_x \subset \omega : x \in X\}$ of subsets of ω indexed by a set $X \subseteq [0, 1]$. We say that an almost chain contains at most one alternation at n if there are no $x_1 < y_1 < x_2 < y_2$ in X such that $n \in A_{x_i}$ and $n \notin A_{y_i}$. Our goal is to remove as much alternations as possible by changing at most finitely many elements in each set A_x .

It turns out that if the set X is uncountable, then there is an almost chain which cannot be straightened into a \subseteq -chain. With Antonio Avilés we were able to show that, consistently, if size of the set X is sufficiently small, then each almost chain can be straightened so that it contains at most one alternation at each $n \in \omega$.

REFERENCES

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