

A COMBINATORIAL CHART OF DIRECT IMPLICATIONS

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This is a chart of some combinatorial principles in ZFC. Chang conjectures are considered as combinatorial principles here. An arrow denotes direct implication. Most notions are standard and can be found in Jech or Kanamori. Here are the not so standard ones:

A cardinal κ is strongly λ -Erdős if for every partition $f : [\kappa]^{<\omega} \rightarrow 2$ and every $\theta < \kappa$, there is a set $H \in [\kappa \setminus \theta]^\lambda$ that is homogeneous for f . Such an Erdős gives us indiscernibles that sit arbitrarily high in κ . The statement $\kappa \rightarrow^\theta (\lambda)_2^{<\omega}$ means that $\kappa \rightarrow (\lambda)_2^{<\omega}$, and $\theta \not\rightarrow (\lambda)_2^{<\omega}$. This is used to get λ many indiscernibles above θ .

For a cardinals κ, λ , with $\omega_1 \leq \lambda < \kappa$,

