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*Matchings from a set below to a set above.* (In English)

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One way to represent a matching in a graph of a set  $A$  with a set  $B$  is with a one-to-one function  $m : A \rightarrow B$  for which each pair  $\{a, m(a)\}$  is an edge of the graph. If the underlying set of vertices of the graph is linearly ordered and every element of  $A$  is less than every element of  $B$ , then such a matching is a down-up matching. In this paper we investigate graphs on well-ordered sets of type  $\alpha$  and in many circumstances find either large independent sets of type  $\beta$  or down-up matchings with the initial set of some prescribed size  $\gamma$ . In this case we write  $\alpha \rightarrow (\beta, \gamma\text{-matching})$ .

Classification:

04A20 Combinatorial set theory

05C70 Factorization, etc.

Keywords:

partition relation; bipartite graph; graphs on well-ordered sets; large independent sets; down-up matchings