

Stable structures and their non-choice analogues

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A *weakly Dedekind-finite* set is a set X which cannot be mapped onto ω . If the Axiom of Choice is assumed, all weakly Dedekind-finite sets are finite. If the Axiom is not assumed, it is possible for infinite weakly Dedekind-finite sets to exist. The parallels between various classes of weakly Dedekind-finite sets and certain structures explored by model theorists have been noted in the past. We explore these parallels in greater detail, focusing on \aleph_0 -categorical structures.