A category $\mathcal{K}$ is alg-universal if any category of algebras has a full embedding into $\mathcal{K}$. This is equivalent to the existence of a full embedding $\Phi : \mathcal{G} @ \rightarrow \rightarrow \mathcal{K}$ of the category $\mathcal{G}$ of undirected graphs and their compatible mappings into $\mathcal{K}$. If $\mathcal{K}$ is a concrete category and the $\mathcal{K}$-object $\Phi G$ has finite underlying set for every finite graph $G$, we say that $\mathcal{K}$ is finite-to-finite alg-universal. There are weaker forms of universality. For instance, a concrete category $\mathcal{K}$ need not be universal, but augmenting each $\mathcal{K}$-object by $k \geq 1$ constants and requiring that each of these constants be preserved gives rise to a proper subcategory of $\mathcal{K}$ called the $k$-expansion and denoted as $k\mathcal{K}$ that may well be alg-universal. A stronger version of weak universality is based on the concept of an ideal $J$ of a category $\mathcal{K}$. A class $J$ of $\mathcal{K}$-morphisms is an ideal of $\mathcal{K}$ if $f \circ g \in J$ whenever $f \in J$ or $g \in J$. And $\mathcal{K}$ is $J$-relatively alg-universal if there is a faithful functor $\Phi : \mathcal{G} @ \rightarrow \rightarrow \mathcal{K}$ such that $\Phi m \notin J$ for every $\mathcal{G}$-morphism $m$ and every $\mathcal{K}$-morphism $k : \Phi G @ \rightarrow \rightarrow \Phi G'$ outside of $J$ has the form $k = \Phi m$ for some $m \in \mathcal{G}(G,G')$. The variety $\mathcal{D}$ of distributive $(0,1)$-lattices and the category $\mathcal{P}$ of all Priestley spaces dual to $\mathcal{D}$ are far from alg-universal, while their respective expansions $2\mathcal{D}$ and $2\mathcal{P}$ are. The main result used here is that

(R): the expansions $1\mathcal{D}$ and $1\mathcal{P}$ are $J$-relatively alg-universal for the ideal $J$ formed by all morphisms whose image is finite.

When combined with earlier results, (R) implies this

**Theorem:** For every non-regular variety $\mathcal{V}$ of distributive double $p$-algebras there are integers $m \leq 5$ and $n \leq 6$ such that its $m$-expansion $m\mathcal{V}$ is alg-universal and its $n$-expansion $n\mathcal{V}$ is finite-to-finite alg-universal. If $\mathcal{V}$ is a finitely generated regular variety of distributive double $p$-algebras then for no cardinal $\alpha$ the $\alpha$-expansion $\alpha\mathcal{V}$ is alg-universal.

A more complete categorical classification of such varieties will be discussed in the talk.