Abstract submitted for Universal Structures in Mathematics and Computing

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Title: An abstract definition of a restricted Priestley duality with applications to discriminator varieties
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Session: abstract

Anyone who has ever worked with a variety $\mathcal{A}$ of algebras with a reduct in the variety of bounded distributive lattices will know a restricted Priestley duality when they meet one—but until now there has been no abstract definition. Here we provide one. After deriving some basic properties of a restricted Priestley dual category $\mathcal{X}$ of such a variety, we give a characterisation, in terms of $\mathcal{X}$, of finitely generated discriminator subvarieties of $\mathcal{A}$. As an application of the theory we give a characterisation of discriminator varieties of Cornish algebras.