Stone duality above dimension zero:

Infinitary algebras of real-valued functions
on compact Hausdorff spaces

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We shall give a finite axiomatisation of a class of infinitary algebras that we call δ-algebras. These are MV-algebras with one additional infinitary operation. We prove that the category of δ-algebras is a full subcategory of the category of MV-algebras, and it is dually equivalent to the category of compact Hausdorff spaces and continuous maps. In other words, an MV-algebra can be represented as the algebra of all $[0, 1]$-valued continuous functions on a compact Hausdorff space if, and only if, it is a δ-algebra. Equivalently, δ-algebras provide an (infinitary) equational axiomatisation of the class of unit balls of real commutative unital C^*-algebras.

This solves a long-standing problem that has been tackled by Pelletier, Isbell, Rosický and others. If time allows, we will provide context.