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Spaces of Types in Positive Model Theory

Positive model theory is a generalisation of first-order model theory, where definable sets are closed under finite conjunctions, finite disjunctions and projections (but not necessarily complementation). I will introduce a notion of a space of types in positive model theory based on Stone duality for distributive lattices. In general these spaces are non-Hausdorff compact sober spaces. I will show that they closely mirror the Stone spaces of types in first-order model theory. In particular, many classical results in first-order model theory generalise to the positive setting if we pick the right topological generalisations of notions from Hausdorff to sober spaces.