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In 1951, Jónsson and Tarski obtained a representation theorem of modal algebras. A modern formulation is that the category of modal algebras is dually equivalent to the category of coalgebras for the Vietoris endofunctor over Stone spaces.

In the past years there has been a growing interest in analogues of Jónsson-Tarski duality in the larger settings of compact Hausdorff spaces and of stably compact spaces [2, 4, 3]. Our main result is that the category of coalgebras for the Vietoris functor on compact Hausdorff spaces is dually equivalent to a variety of infinitary algebras. For this, instead of working with the set of clopen subsets of a Stone space, we work with the set of continuous $[0, 1]$ -valued functions on a compact Hausdorff space. We deliver analogous results for the upper, lower and convex Vietoris endofunctors on stably compact spaces.

This abstract is based on [1].

[1] MARCO ABBADINI AND IVAN DI LIBERTI, *Duality for coalgebras for Vietoris and monadicity*, ***Preprint at arXiv:2302.09529***.

[2] G. BEZHANISHVILI, N. BEZHANISHVILI, AND J. HARDING, *Modal compact Hausdorff spaces*, ***Journal of Logic and Computation***, vol. 25 (2015), no. 1, pp. 1–35.

[3] G. BEZHANISHVILI, L. CARAI, AND P. J. MORANDI, *Modal operators on rings of continuous functions*, ***The Journal of Symbolic Logic***, vol. 87 (2022), no. 4, pp. 1322–1348.

[4] D. HOFMANN, R. NEVES, AND P. NORA, *Limits in categories of Vietoris coalgebras*, ***Mathematical Structures in Computer Science***, vol. 29 (2019), no. 4, pp. 552–587.