Gödel spaces and perfect MV-algebras
Antonio Di Nola, Revaz Grigolia, and Giacomo Lenzi

It is shown that the category of Gödel spaces $\mathbf{GS}$ (with strongly isotone maps as morphisms), which is dually equivalent to the category of Gödel algebras, is transferred by a contravariant functor $H$ into the category $\mathbf{MV}(C)^G$ of MV-algebras generated by perfect MV-chains via direct products, subalgebras and direct limits. And, conversely, by means of a contravariant functor $P$ the category $\mathbf{MV}(C)^G$ is transferred onto the category $\mathbf{GS}$. Moreover, it is shown that the functor $H$ is faithful and the functor $P$ is full. Furthermore, both functors are dense. The description of finite coproducts of algebras which are isomorphic to Chang’s algebra is given. Using duality a description of projective algebras in $\mathbf{MV}(C)^G$ is given.