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Stone functor

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Synonym Stone-functor

The Stone-functor $S: Top^{op} \to Boo$ (where Boo is the construct of boolean algebras and boolean homomorphisms) assigns to each topological space the boolean algebra of its clopen subsets, and for any continuous map $f: X \to Y$; i.e. for any morphism $f: Y \to X$ in Top^{op} , $Sf: S(Y) \to S(X)$ is given by $Sf(Z) = f^{-1}[Z]$.