

Derivational modal logics with the difference modality

Andrey Kudinov, Valentin Shehtman

We consider logics of topological spaces with the derivational and the difference modalities ('dd-logics') and show that in many cases they inherit properties of corresponding derivational modal logics. In particular, we give an axiomatization and prove the FMP for the logics of \mathbf{R}^n for $n > 1$ and zero-dimensional dense-in-itself separable metric spaces. We also show that dd-logics are more expressive than other topological modal logics.