

A brief introduction to topological semantics for modal logic

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Modal logic is based on a simple language and has a wide range of interpretations. In the 1940's McKinsey and Tarski introduced two ways of interpreting the modal diamond in a topological space. The first interprets diamond as the closure operator and has recently been dubbed c-semantics. The second interprets diamond as the derivative (or limit point) operator and has become known as d-semantics. This tutorial serves as a brief introduction to both c-semantics and d-semantics. In this tutorial we quickly recall the language for modal logic, the definition of a modal logic as well as relational semantics for modal logic. We present the two topological semantics of McKinsey and Tarski and explore some results. The remaining time is dedicated to connections between c-, d- and relational semantics.