

Many-Dimensional Modal Logics

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Many-dimensional propositional modal logics (multi-modal logics having many-dimensional Kripke frames among their frames) have been studied both in pure modal logic and in various computer science and artificial intelligence applications. They are also connected to algebras of relations in algebraic logic, and to finite variable fragments of modal, intuitionistic and classical predicate logics. In this talk we discuss some of these connections. We also give a survey of the known results and open questions on the axiomatisation and decision problems of many-dimensional modal logics.