

**Kozen, Dexter**

**Results on the propositional  $\mu$ -calculus.** (English) Zbl 0553.03007  
Theor. Comput. Sci. 27, 333-354 (1983).

In this paper we define and study a propositional  $\mu$ -calculus  $L\mu$ , which consists essentially of propositional modal logic with a least fixpoint operator.  $L\mu$  is syntactically simpler yet strictly more expressive than Propositional Dynamic Logic (PDL). For a restricted version we give an exponential-time decision procedure, small model property, and complete deductive system, thereby subsuming the corresponding results for PDL.

**MSC:**

03B45 Modal logic (including the logic of norms)  
68Q65 Abstract data types; algebraic specification

Cited in **12** Reviews  
Cited in **275** Documents

**Keywords:**

fixed point induction; completeness; propositional mu-calculus; propositional modal logic; decision procedure; small model property; PDL

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