Compact Companion

**Logic and
Computations**

Herman Ruge Jervell

λογος

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This short book is a complete introduction to logic and computations. As computations we use finite state automata and turing machines. In logic we use sequent calculus and show its completeness. The interrelation between logic and computations is stressed by using predicate logic to simulate computations and seeing how undecidability phenomena on computations is transferred to incompleteness in logic. We end up with discussions of complexity both in logic and in computations.

A novel feature here is the use of AND-OR trees in describing alternating automata, in introducing sequent calculus, and in complexity.

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