NOTES

Turing machines were introduced by A. M. Turing in his classic paper:

A. M. TURING, "On computable numbers, with an application to the Entscheidungsproblem," *Proceedings, London Mathematical Society* 2:42 (1936-1937), 230-265. Errata appear in 2:43 (1937), 544-546.

and another machine model for computation was discovered independently by:

E. L. POST, "Finite combinatory processes. Formulation I," *Journal of Symbolic Logic* 1 (1936), 103-105.

Other computational models can be found in:

N. CHOMSKY, "Three models for the description of language," *IRE Transactions on Information Theory* 2:3 (1956) 113-124.

A. CHURCH, "The Calculi of Lambda-Conversion," *Annals of Mathematics Studies* 6 (1941) Princeton University Press, Princeton, New Jersey.

S. C. KLEENE, "General recursive functions of natural numbers," *Mathematische Annalen* 112:5 (1936) 727-742.

A. A. MARKOV, "Theory of Algorithms," *Trudy Mathematicheskogo Instituta imeni V. A. Steklova* 42 (1954).

E. L. POST, "Formal reductions of the general combinatorial decision problem," *American Journal of Mathematics* 65 (1943) 197-215.

More information on enhanced Turing machines appears in many papers of the literature. Several titles are:

P. C. FISCHER, A. R. MEYER, and A. L. ROSENBERG, "Real-time simulation of multihead tape units," *Journal of The Association for Computing Machinery* 19:4 (1972) 590-607.

J. HARTMANIS and R. E. STEARNS, "On the computational complexity of algorithms," *Transactions of the American Mathematical Society* 117 (1965) 285-306.

H. WANG, "A variant to Turing's theory of computing machines," *Journal of the Association for Computing Machinery* 4:1 (1957) 63-92.

Church's Thesis was presented in:

A. CHURCH, "An unsolvable problem of elementary number theory," *American Journal of Mathematics* 58 (1936) 345-363.

Other textbooks which contain material on Turing machines include:

M. DAVIS, *Computability and Unsolvability*. McGraw-Hill, New York, 1958.

J. E. HOPCROFT and J. D. ULLMAN, *Introduction to Automata Theory, Languages, and Computation*. Addison-Wesley, Reading, Mass., 1979.

H. R. LEWIS and C. H. PAPADIMITRIOU, Elements of the Theory of Computation. Prentice-Hall, Englewood Cliffs, N. J., 1981.

M. L. MINSKY, *Computation: Finite and Infinite Machines*. Prentice-Hall, Englewood Cliffs, N. J., 1967.

The papers by Church, Kleene, Post, and Turing cited above have been reprinted in the collection:

M. DAVIS, ed., *The Undecidable*. Raven Press, Hewlett, N.Y. 1965.