NOTES

Finite automata literature began with three classic papers:

D. A. HUFFMAN, "The synthesis of sequential switching circuits," *Journal of the Franklin Institute 257:3-4 (1954)*, 161-190 and 275-303.

G. H. MEALY, "A method for synthesizing sequential circuits," *Bell System Technical Journal 34:5 (1955)*, 1045-1079.

E. F. MOORE, "Gedanken experiments on sequential machines," in *Automata Studies*, 129-153, Princeton University Press, Princeton, New Jersey, 1956.

Nondeterministic machines were first examined by Rabin and Scott. This and other papers which present closure properties concerning finite automata are:

Y. BAR-HILLEL, M. PERLES, and E. SHAMIR, "On formal properties of simple phrase structure grammars," *Zeitschrift fur Phonetik, Sprachwissenschaft, und Kommunikationsforshung 14 (1961)*, 143-172.

S. GINSBURG and E. H. SPANIER, "Quotients of context free languages," *Journal of the Association for Computing Machinery 10:4 (1963)*, 487-492.

M. O. RABIN and D. SCOTT, "Finite automata and their decision problems," *IBM Journal of Research and Development 3 (1959)*, 114-125.

Regular sets and their relation to finite automata appear in:

J. A. BRZOZOWSKI, "A survey of regular expressions and their applications," *IEEE Transactions on Electronic Computers 11:3 (1962)*, 324-335.

S. C. KLEENE, "Representation of events in nerve nets and finite automata." in *Automata Studies*, 3-42, Princeton University Press, Princeton, New Jersey 1956.

R. McNAUGHTON and H. YAMADA, "Regular expressions and state graphs for automata." *IEEE Transactions on Electronic Computers 9:1 (1960)*, 39-47.

Bar-Hillel, Perles and Shamir presented the pumping lemma and many of its uses. Other decision problems and their solutions were first examined by Moore.

Pushdown automata emerged in:

A. G. OETTINGER, "Automatic syntactic analysis and the pushdown store," *Proceedings of Symposia on Applied Mathematics 12*, American Mathematical Society, Providence, Rhode Island, 1961.

Many papers and books have been written about topics which include pushdown machines. The general texts referenced in chapters one and four mention lots of them. We shall only cite the paper containing the unsolvable decision problem results for pda.

J. HARTMANIS, "Context free languages and Turing machine computations," *Proceedings of Symposia on Applied Mathematics 19*, American Mathematical Society, Providence, Rhode Island, 1967.

Linear bounded automata were developed by Myhill and examined in:

N. IMMERMAN, "Nondeterministic space is closed under complementation." *SIAM Journal of Computing 17:5 (1988)*, 935-938.

P. S. LANDWEBER, "Decision problems of phrase structure grammars." *IEEE Transactions on Electronic Computers 13 (1964)*, 354-362.

J. MYHILL, "Linear bounded automata," *WADD TR-57-624*, 112-137, Wright Patterson Air Force Base, Ohio, 1957.

Several general texts on automata theory and formal languages are listed at the end of the languages chapter.