REPORT ON SWAT 1971

The Twelfth Annual Conference on Switching and Automata Theory sponsored jointly by the Switching and Automata Theory Committee of the IEEE Computer Society and the Department of Computer Science of Michigan State University, was held October 13-15, 1971 in East Lansing, Michigan. The twenty-seven papers in the conference proceedings represent the "usual" areas; this year, however, the distribution of papers over the subject areas was markedly changed: Nine of the twenty-seven papers were on the analysis of "practically inspired" algorithms and another five of the papers were in computational complexity and the analysis of program schemas. There certainly was not very much switching theory (four papers) or automata theory (also four papers). Perhaps the name of the conference should be amended.

The appendix (following) contains a list of the papers available in the conference proceedings.

E. M. Reingold

Contents of Conference Record 1971
Twelfth Annual Symposium on Switching and Automata Theory

High Level Languages of Maximum Power, by H. R. Strong.
On Classes of Program Schemata, by R. L. Constable and D. Gries.

On the Composition of Parallel Program Schemata, by W. A. Brinsfield and R. E. Miller

Toward a Weakly Invariant Complexity Theory, by W. A. Burkhard and F. W. Kroon.

Effective Computation Over the Real Numbers, by F. G. Abramson.

On the Design of Easily Testable Sequential Machines, by J. R. Kane and S. S. Yau.

Universal Base Functions and Modules for Realizing Arbitrary Switching Functions, by M. Y. Osman and C. D. Weiss.

Synthesis of Asynchronous Sequential Circuits with Master-Slave Subcircuits, by G. Frosini and G. B. Gerace.

A Rectangular Logic Array, by S. B. Akers, Jr.

NAND Cellular Arrays, by D. A. Stern and H. C. Torng.

Computation by Multi-Head Finite Automata, by I. H. Sudborough.

Depth-First Search and Linear Graph Algorithms, by R. Tarjan.

A $n^{5/2}$ Algorithm for Maximum Matchings in Bipartite Graphs, by J. E. Hopcroft and R. M. Karp.

On Decreasing the Computing Time for Modular Arithmetic, by L. E. Heindel and E. Horowitz.

Boolean Matrix Multiplication and Transitive Closure, by M. J. Fischer and A. R. Meyer.

Optimal Algorithms for Parallel Polynomial Evaluation, by I. Munro and M. Paterson.

Bounds on the Evaluation Time for Rational Polynomials, by M. Paterson and L. Stockmeyer.

Two-Dimensional Formal Languages and Pattern Recognition by Cellular Automata, by A. R. Smith III.

LR-Regular Grammars - An Extension of LR(k) Grammars, by R. Cohen and K. Culik II.

Characterizations of Locally Testable Events, by J. A. Brzozowski and I. Simon.

Priority Paging Algorithms and the Extension Problem, by E. G. Coffman, Jr. and N. D. Jones.

[†]Time Bounds on Space Computations, by M. L. Dertouzos.

Economy of Description by Automata, Grammars, and Formal Systems, by A. R. Meyer and M. J. Fischer.

Languages for Defining Sets in Arbitrary Algebras, by E. G. Wagner.

Complete Linear Proofs of Systems of Linear Inequalities, by P. M. Spira.

Analysis of Sorting Algorithms, by C. L. Liu.

Computing the Maximum and the Median, by E. M. Reingold.

[†]Not presented at the conference.