

Subject Index for Papers in Volume 18

Each index term below is accompanied by a page number and an author's name. With that name in the Author Index are the title of the paper and the names of coauthors, if any.

Subject	Author	Page
Acoustics		
Underwater sound propagation	Beisner	53
Algorithms		
Compiler register assignment	Beatty	20
Data base searching	Ghosh	408
Effects of serial programs	King	303
Encoding	Bahl	172
Equalizer optimization	Godard	267
Interactive scheduler	Anderson	125
Logic partitioning	Hanan	328
Multivalued MIN algorithm	Belady	2
Parallel recurrence solutions	Kogge	138
Partitioning trees	Lukes	217
Predictive coding	Kobayashi	164
Unbounded queue pricing	Low	290
Analytical models		
AC gas display panel	Lanza	232
Analysis of program address traces	Gaver	423
Bulk queue model	Chang	370
Cyclic gas panel operation	Lay	244
Diffusion approximation	Reiser	110
Effects of serial programs	King	303
Electron scattering in films	Kyser	352
Liquid jet drop formation	Lee	364
Magnetoresistive head	Cole	551
Multilevel hierarchies	Gecsei	316
Potentials in MIS arrays	Chang	47
Storage hierarchy optimization	Chow	194
Task-switching policy	Kaneko	310
Chemistry		
$\text{BBr}_3 + \text{H}_2\text{O}$ oxidation	Lever	40
Codes and coding		
Image data compression	Kobayashi	164
Image data compression	Bahl	172
Rectangular code for magnetic tape	Patel	579
Communications technology		
Channel equalization	Godard	267
Microcoded modem transmitters	Choquet	338
Self-directional microwave system	Gruenberg	149
Three-stage switches	Karnaugh	204
Addendum	Karnaugh	465
Compiling and interpreting		
Register assignment	Beatty	20
Computation		
Parallel recurrence solutions	Kogge	138
Partitioning trees	Lukes	217
Data structure		
Data base searching	Ghosh	408
Partitioning trees	Lukes	217

Data transmission		
Channel equalization	Godard	267
Image data compression	Kobayashi	164
Image data compression	Bahl	172
Microcoded modem transmitters	Choquet	338
Point-to-Point traffic loss	Karnaugh	204
Addendum	Karnaugh	465
Electromagnetics		
Self-directional microwave system	Gruenberg	149
Films		
Electron microprobe analysis	Kyser	352
Ferrite recording surface	Comstock	556
Magneto-optic	Huth	100
Filters		
Recursive	Pistor	59
Graph theory		
Partitioning trees	Lukes	217
Imaging technology		
Interface photoemission	DiStefano	94
Photolithography and metrology	Rottmann	225
Logic		
Heuristic minimization	Hong	443
Heuristic partitioning	Hanan	328
Minimization test examples	Ostapko	459
Relation of logic to memory	Donath	401
Magnetic recording		
Air bearing gap measurement	Fleischer	529
Analysis of magnetoresistive head	Cole	551
Code for high-density tape	Patel	579
Disk file aerodynamics	Lennemann	480
Disk file design (IBM 3340)	Mulvany	489
Disk file head-positioning servo	Oswald	506
Disk media noise	Su	570
Ferrite film surface	Comstock	556
Foil bearing dynamics	Stahl	513
Foil bearing lubrication	Vogel	521
Head stress analysis	Tang	274
Magnetoresistive transducer	Bajorek	541
Pulses in magnetoresistive head	Hempstead	547
Remanent state of tapes	Bate	563
Slider bearing lubrication	Talke	534
Tape switching speed	Thornley	576
Thermomagnetic writing	Huth	100
Management science		
Data base searching	Ghosh	408
Inventory model	El Agizy	72
Materials		
Defects in dilute alloys	Ho	386
Electron microscope sample preparation	Das	76
Ferrite films	Comstock	556
Glass-bonded ferrite	Tang	274
Silicon diffusion	Lever	40
Markov process analysis		
Analysis of program address traces	Gaver	433
Bulk queue model	Chang	370
Effects of serial programs	King	303
Unbounded queue pricing	Low	290
Mathematics (applied)		
Analysis of program address traces	Gaver	425
Bulk queue model	Chang	370
Correctness of microprograms	Birman	250
Data base searching	Ghosh	408
Diffusion approximation	Reiser	110
Dynamic shell loading	Bogy	395
Effects of serial programs	King	303
Electron microprobe analysis	Kyser	352
Heuristic logic minimization	Hong	443
Inventory management model	El Agizy	72
Liquid jet drop formation	Lee	364
Logic minimization examples	Ostapko	459
MIS array model	Chang	47
Parallel recurrence solutions	Kogge	138

Recursive filter stability	Pistor	59	Diffusion approximation	Reiser	110
Relation of logic to memory	Donath	401	Task-switching policy	Kaneko	310
Stable domain radii	Huth	100	Unbounded queue pricing	Low	290
Storage hierarchy optimization	Chow	194	Recording technology		
Task-switching policy	Kaneko	310	Air bearing gap measurement	Fleischer	529
Three-stage switching model	Karnaugh	204	Analysis of magnetoresistive head	Cole	551
Addendum	Karnaugh	465	Code for high-density tape	Patel	579
Unbounded queue pricing	Low	290	Disk file aerodynamics	Lennemann	480
Underwater sound propagation	Beisner	53	Disk file design (IBM 3340)	Mulvany	489
Measurement			Disk file head-positioning servo	Oswald	506
Interactive scheduler	Anderson	125	Disk media noise	Su	570
Laser interferometer	Fleischer	529	Ferrite film surface	Comstock	556
Multivalued MIN algorithm	Belady	2	Foil bearing dynamics	Stahl	513
Photolithography and metrology	Rottmann	225	Foil bearing lubrication	Vogel	521
Mechanics			Head stress analysis	Tang	274
Air bearing gap measurement	Fleischer	529	Magnetoresistive transducer	Bajorek	541
Disk file aerodynamics	Lennemann	480	Pulses in magnetoresistive head	Hempstead	547
Disk file design (IBM 3340)	Mulvany	489	Remanent state of tape	Bate	563
Disk file head-positioning servo	Oswald	506	Slider bearing lubrication	Talke	534
Dynamic shell loading	Bogy	395	Tape switching speed	Thornley	576
Foil bearing dynamics	Stahl	513	Thermomagnetic writing	Huth	100
Foil bearing lubrication	Vogel	521	Semiconductor devices		
Slider bearing lubrication	Talke	534	CCD free charge transfer	Chang	436
Stress analysis	Tang	274	Diffusion into silicon	Lever	40
Memory hierarchies			MIS array potential	Chang	47
Analysis of program-address traces	Gaver	423	Simulation		
Multilevel hierarchies	Gecsei	316	AC gas display panel	Lanza	232
Multivalued MIN algorithm	Belady	2	Correctness of microprograms	Birman	250
Storage hierarchy optimization	Chow	194	Cyclic gas panel operation	Lay	244
Task-switching policy	Kaneko	310	Interactive scheduler	Anderson	125
Microelectronics			Solid state physics		
CCD free charge transfer	Chang	436	Electron scattering	Kyser	352
Electron microprobe sample preparation	Das	76	Impurity-vacancy binding energy	Ho	386
IC mask metrology	Rottmann	225	Potentials in MIS arrays	Chang	47
Operating systems			Scanning internal photoemission	DiStefano	94
Effects of serial programs	King	303	Surface studies		
Interactive scheduler	Anderson	125	Ferrite film recording surface	Comstock	556
Task-switching policy	Kaneko	310	Interface photoemission	DiStefano	94
Optical science and technology			MIS potential profile	Chang	47
Interferometric gap measurement	Fleischer	529	Remanent state of recorded tapes	Bate	563
Interferometric study of foil bearings	Vogel	521	System configuration and architecture		
Photolithography and metrology	Rottmann	225	Analysis of program address traces	Gaver	423
Scanning internal photoemission	DiStefano	94	Bulk queue model	Chang	370
Physical chemistry			Correctness of microprograms	Birman	250
Impurity-vacancy binding energy	Ho	386	Effects of serial programs	King	303
Open-tube silicon diffusion	Lever	40	Multilevel hierarchies	Gecsei	316
Processes			Storage hierarchy optimization	Chow	194
Electron microprobe sample preparation	Das	76	Thermodynamics		
Ferrite recording surface	Comstock	556	Pulses in magnetoresistive head	Hempstead	547
Silicon diffusion	Lever	40	Thermomagnetic writing	Huth	100
Programming and programming languages			Wave propagation		
Correctness of microprograms	Birman	250	Dynamic shell loading	Bogy	395
Data base searching	Ghosh	408	Self-directional microwave system	Gruenberg	149
Queuing theory			Underwater sound modes	Beisner	53
Bulk queue model	Chang	370			

Contents of previous issue

September 1974

Vol. 18, No. 5

• Papers

Interatomic Potentials and Defect Energetics
in Dilute Alloys

P. S. Ho and R. Benedek 386

Steady Solution for Circumferentially
Moving Loads on Cylindrical Shells

D. B. Bogy, H. J. Greenberg and F. E. Talke 395

Equivalence of Memory to "Random Logic"

W. E. Donath 401

String Path Search Procedures for Data
Base Systems

S. P. Ghosh and M. E. Senko 408

Analysis of Exception Data in a Staging
Hierarchy

D. P. Gaver, P. A. W. Lewis and G. S. Shedler ... 423

Structure Dependence of Free-Charge Transfer
in Charge-coupled Devices

W. H. Chang and L. G. Heller 436

MINI: A Heuristic Approach for Logic
Minimization

S. J. Hong, R. G. Cain and D. L. Ostapko 443

• Communications

Generating Test Examples for Heuristic
Boolean Minimization

D. L. Ostapko and S. J. Hong 459

Addendum to "Loss of Point-to-Point Traffic
in Three-Stage Circuit Switches"

M. Karnaugh 465

IBM

The IBM Journal of Research and Development is abstracted by *Applied Mechanics Reviews*, *Bulletin Signalétique*, *Chemical Abstracts*, *Computer Abstracts*, *Computer & Control Abstracts*, *Computer & Information Systems*, *Computing Reviews*, *Current Bibliography of Science and Technology* (Japan), *Data Processing Digest*, *Electrical & Electronics Abstracts*, *Electronics & Communications Abstracts*, *Electronics & Communications Abstracts Journal*, *Engineering Index*, *Information Science Abstracts*, *International Aerospace Abstracts*, *Laser and Electro-Optics Reviews*, *Magnetohydrodynamics & Plasmas*, *Mathematical Reviews*, *Metals Abstracts*, *Metron*, *Operations Research/Management Science*, *Physics Abstracts*, *Physikalische Berichte*, *Referativnyi Zhurnal*, *Science Citation Index*, *Solid State Abstracts Journal*, and *Theoretical Physics Abstracts Journal*. Reproductions of the IBM Journal by years are available on positive and negative microfilm from University Microfilms, 300 North Zeeb Road, Ann Arbor, Michigan 48106.