

Subject Index for Papers in Volume 27

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
Algorithms		
Carpool scheduling	Fagin	133
Computing Pythagorean sums	Moler	577
Generalizing Pythagorean sum computation	Dubrulle	582
Handwriting recognition	Lew	181
VLSI sorter	Miranker	140
Analytical models		
Model for yield prediction	Dooley	59
On Murphy's yield formula	Meister	545
Quality level in logic chips and modules	Cleverley	4
Software-cache interaction	Voldman	164
Tolerance to crosstalk noise	Park	432
Arithmetic and logical unit design		
Exclusive-OR representation	Fleisher	412
Channel subsystem architecture		
370-XA: channel subsystem architecture	Cormier	206
Character recognition		
Handwriting recognition	Lew	181
Image thresholding	White	400
Processor-based OCR	Casey	386
Chemistry and chemical engineering		
C ¹³ NMR of solid polymers	Lyerla	302
Electrochemical synthesis of conducting polymers	Bargon	330
Electron microscopy of carbon-loaded polymers	Hanchett	348
Mechanical properties of polypyrrole films	Diaz	342
NMR of conducting polymers	Clarke	313
Polymer structure via electron diffraction	Geiss	321
Coding theory		
Arithmetic codes for constrained channels	Martin	94
Fixed rate arithmetic coding	Todd	107
8B/10B transmission code	Widmer	440
Communications and communication networks		
Arithmetic codes for constrained channels	Martin	94
Fixed rate arithmetic coding	Todd	107
Interconnected token-access rings (tutorial)	Strole	481
Local network routing	Franaszek	464
Network architecture and implementation	Smith	68
OSI transport in SNA	François	452
Periodic sequences for start-up equalization	Milewski	426
Simulating non-Markovian systems	Iglehart	472

Compilers and interpreters		
801 minicomputer	Radin	237
Computational methods		
Computing Pythagorean sums	Moler	577
Generalizing Pythagorean sum computation	Dubrulle	582
Computer applications		
Failure diagnosis on LT1280	Barry	41
Optical testing of PC boards	West	50
Computer architecture		
370-XA architecture: virtual machine facilities	Gum	530
370-XA: architecture design considerations	Padegs	198
370-XA: channel subsystem architecture	Cormier	206
801 minicomputer	Radin	237
Computer architecture documentation		
Computer architecture documentation	Wright	257
Computer-controlled manipulators		
Numerical control for TCMs	Sanborn	20
Twisted-pair wire bonding	Houser	598
Computer organization and design		
Machine organization and control program integration	Rao	247
801 minicomputer	Radin	237
Data-definition facilities		
SLAN-4—software specification language	Beichter	558
Data structures and accessing		
Relational expression optimization	Blaauw	497
Database design		
Relational expression optimization	Blaauw	497
Design automation		
Circuits as 3D structures	Koppelman	149
Display technology		
Color display of complex data	Farrell	356
Image processing system architecture	Franchi	116
Optical-image processing inspection	Wahl	376
Perceptual color space	Santisteban	127
Documentation and editing		
Computer architecture documentation	Wright	257
Electrical packaging technology		
MLC manufacturing	Burger	11
Multi-chip module test	Curtin	27
Optical testing of PC boards	West	50
Panel-drilling system	Wrenner	285
TCM testing	Pierson	35
Twisted-pair wire bonding	Houser	598
Electromagnetic theory		
Tolerance to crosstalk noise	Park	432
Error control and recovery		
Fault-tolerant system architecture	Comfort	219
Error control codes		
8B/10B transmission code	Widmer	440

Fabrication				LSI chip design automation			
MLC manufacturing	Burger	11		Integrated circuits as 3D structures	Koppelman	149	
Numerical control for TCMs	Sanborn	20		Manufacturing technology			
Panel-drilling system	Wrenner	285		Dynamic image analysis	McAuley	367	
Twisted-pair wire bonding	Houser	598		MLC manufacturing	Burger	11	
Fault-tolerant systems				Model for yield prediction	Dooley	59	
Fault-tolerant system architecture	Comfort	219		Multi-chip module test	Curtin	27	
Films				Numerical control for TCMs	Sanborn	20	
Mechanical properties of polypyrrole films	Diaz	342		Optical testing of PC boards	West	50	
Graphics				Panel-drilling system	Wrenner	285	
Color display of complex data	Farrell	356		Quality level in logic chips and modules	Cleverley	4	
Image processing system architecture	Franchi	116		TCM testing	Pierson	35	
Integrated circuits as 3D structures	Koppelman	149		Materials			
Perceptual color space	Santisteban	127		Mechanical properties of polypyrrole films	Diaz	342	
High-reliability, high-availability systems				Simulation of Czochralski flow in Si	Langlois	281	
Fault-tolerant system architecture	Comfort	219		Mathematics (applied)			
Image processing				Carpool scheduling algorithm	Fagin	133	
Color display of complex data	Farrell	356		Computing Pythagorean sums	Moler	577	
Image thresholding	White	400		Deflected forms of bent strips	Lee	590	
Optical-image processing inspection	Wahl	376		Exclusive-OR representation	Fleisher	412	
Perceptual color space	Santisteban	127		Generalizing Pythagorean sum computation	Dubrule	582	
System architecture	Franchi	116		Ink jet squeeze tube analysis	Bugdayci	171	
Impact printer technology				On Murphy's yield formula	Meister	545	
Motion in impact print hammers	Hendriks	273		Software-cache interaction	Voldman	164	
Ink jet printing				Measurement			
Ink jet squeeze tube analysis	Bugdayci	171		Optical-image processing inspection	Wahl	376	
Integrated circuit design				Mechanics and mechanisms			
Circuits as 3D structures	Koppelman	149		Deflected forms of bent strips	Lee	590	
Modeling defect sensitivities	Stapper	549		Ink jet squeeze tube analysis	Bugdayci	171	
Interpretive-execution architecture				Medical electronics			
370-XA architecture: virtual machine facilities	Gum	530		Color display of complex data	Farrell	356	
I/O channel subsystems				Microprocessor-based applications			
370-XA: channel subsystem architecture	Cormier	206		Dynamic image analysis	McAuley	367	
I/O technologies				Processor-based OCR	Casey	386	
Motion in impact printer hammers	Hendriks	273		Models and modeling			
Large-scale integration				Local network routing	Franaszek	464	
Integrated circuits as 3D structures	Koppelman	149		Model for yield prediction	Dooley	59	
Modeling defect sensitivities	Stapper	549		Modeling circuit defect sensitivities	Stapper	549	
VLSI sorter	Miranker	140		Simulating non-Markovian systems	Iglehart	472	
Local area networks				Network architecture			
Local network routing	Franaszek	464		Interconnected token-access rings (tutorial)	Strole	481	
Simulating non-Markovian systems	Iglehart	472		Network architecture and implementation	Smith	68	
Logic design and technology				Office machines and systems			
Exclusive-OR representation	Fleisher	412		Processor-based OCR	Casey	386	
Random-pattern LSSD logic self-test	Eichelberger	265		Operating systems			
Logic design testing				OSI transport in SNA	François	452	
Failure diagnosis on LT1280	Barry	41		Optical character recognition			
Random-pattern LSSD logic self-test	Eichelberger	265		Image thresholding	White	400	
TCM testing	Pierson	35		Processor-based OCR	Casey	386	
Logic self-test				Optics			
Random-pattern LSSD logic self-test	Eichelberger	265		Optical-image processing inspection	Wahl	376	
				Perceptual color space	Santisteban	127	
				Optimization			
				Relational expression optimization	Blaauw	497	
				Performance analysis			
				Software-cache interaction	Voldman	164	

Physics and physical chemistry				Tolerance to crosstalk noise	Park	432
Simulation of Czochralski flow in Si	Langlois	281		8B/10B transmission code	Widmer	440
Plant automation				Signature verification		
Dynamic image analysis	McAuley	367		Handwriting recognition	Lew	181
Failure diagnosis on LT1280	Barry	41				
Polymers				Simulation		
C ¹³ NMR of solid polymers	Lyerla	302		Simulating non-Markovian systems	Iglehart	472
Electrochemical synthesis of conducting polymers	Bargon	330		Simulation of Czochralski flow in Si	Langlois	281
Electron microscopy of carbon-loaded polymers	Hanchett	348		Sorting		
Mechanical properties of polypyrrole films	Diaz	342		VLSI sorter	Miranker	140
NMR of conducting polymers	Clarke	313		Spectroscopy		
Polymer structure via electron diffraction	Geiss	321		C ¹³ NMR of solid polymers	Lyerla	302
				NMR of conducting polymers	Clarke	313
				Polymer structure via electron diffraction	Geiss	321
Printing technology				Statistics		
Ink jet squeeze tube analysis	Bugdayci	171		On Murphy's yield formula	Meister	545
Motion in impact print hammers	Hendriks	273				
Programming and programming languages				Storage hierarchies		
SLAN-4—software specification language	Beichter	558		Software-cache interaction	Voldman	164
Programming systems development				Structured programming		
Machine organization and control program integration	Rao	247		OSI transport in SNA	François	452
SLAN-4—software specification language	Beichter	558		System/370 Extended Architecture (370-XA)		
Quality control				370-XA architecture: virtual machine facilities	Gum	530
Modeling circuit defect sensitivities	Stapper	549		370-XA: architecture design considerations	Padegs	198
Quality level in logic chips and modules	Cleverley	4		370-XA: channel subsystem architecture	Cormier	206
Random-pattern logic testing				Systems architecture and development		
Random-pattern LSSD logic self-test	Eichelberger	265		Fault-tolerant system architecture	Comfort	219
Reduced-instruction-set computers				Machine organization and control program integration	Rao	247
801 minicomputer	Radin	237		Network architecture and implementation	Smith	68
Relational databases				370-XA: architecture design considerations	Padegs	198
Relational expression optimization	Blaauw	497		Telecommunications		
Remote sensing				Interconnected token-access rings (tutorial)	Strole	481
Image processing system architecture	Franchi	116		Periodic sequences for start-up equalization	Milewski	426
Scheduling				Virtual-machine facilities		
Carpool scheduling algorithm	Fagin	133		370-XA architecture: virtual machine facilities	Gum	530
Signal processing						
Periodic sequences for start-up equalization	Milewski	426				